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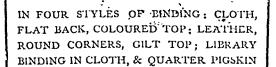
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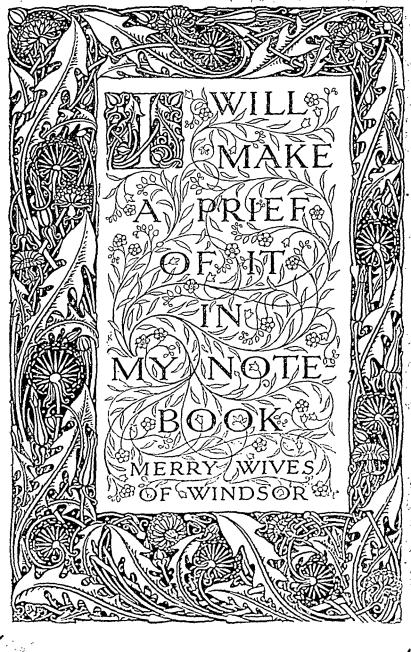
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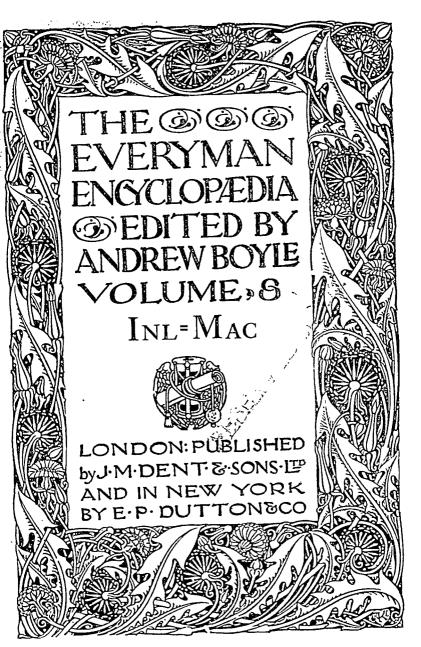
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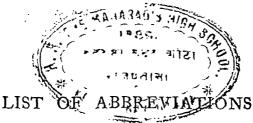


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ac., acres. A.D., after Christ. agric., agricultural. ambas., ambassador. ann., annual. arron., arrondissement. A.-S., Anglo-Saxon. A.V., Authorised Version. b.. born. B.c., before Christ. Biog. Dict., Biographical Dictionary. bor., borough. bp., birthplace. C., Centigrade. c. (circa), about. cap., capital. cf., compare. co., county. com., commune. cub. ft., cubic feet. d., died. Dan., Danish. dept., department. dist., district. div., division. E., east ; eastern, eccles,, ecclesiastical. ed., edition; edited. e.g., for example. Ency. Brit., Encyclopædia Britannica. Eng., English. estab., established. ct seq., and the following. F., Fahrenheit. fl., flourished. fort. tn., fortified town. Fr., French. ft., feet. Ger., German.

Gk., Greek.

gov., government. Heb., Hebrew.

Hist., History.

i.e., that is. in., inches. inhab., inhabitants. Is., island, -s. It., Italian. Jour., journal. Lat., Latin. lat., latitude. l. b., left bank. long., longitude. m., miles. manuf., manufacture. mrkt. tn., market-town. Mt., mts., mount, mountain, -a. N., north; northern. N.T., New Testament. O.T., Old Testament. par., parish. parl., parliamentary. pop., population. prin., principal. prov., province. pub., published. q.v., which see. R., riv., river. r. b., right bank. Rom., Roman. R.V., Revised Version. S., south : southern. sev., several. Sp., Spanish. sp. gr., specific gravity. sq. m., square miles. temp., temperature. ter., territory. tn., town. trans., translated. trib., tributary. U.S.A., United States of America. vil., village. vol., volume. W., west; western. yds., yards.



Inlaying, a method of ornamenting flat surfaces by the inserting in one material a substance differing therefrom in colour or nature. Thus the basis may be of wood, metal, or stone, and the inlaid or encrusted material of different wood, or of ivory, marble, tortoise-shell, precious metals, etc. The art of I. is practised in the fabrication of furniture and artistic objects of various kinds. I, in wood is generally known as 'marquetry,' in metals it is termed 'damascening,' and in marble and precious stones it forms a variety of 'mosaic work. The word I is, however, generally understood to be limited to the first of these three. It consists the fitting together, to form differently patterns, of coloured pieces of wood. In the Stuart period a good deal of I. was executed in England upon cabinets, chests of drawers, etc. In Italy the most beautiful examples of the art are on panels or choir-stalls, and in Germany, musical instruments, chests, and cabinets are often lavishly inlaid.

Inman, William (1825-81), founder of the Inman Line of steamships, born at Leicester, and educated at Liverpool. He entered a mercantile office, and in 1849 became a partner in the firm of Richardson Bros., Liverpool, and managed their fleet of American sailing - packets trading between Liverpool and Philadelphia, and here he gained an insight into the emigration business, and later directed special attention to the removal of the popes:discomforts of emigrant passengers. The Inman Line, first known as the Albano. He upheld firmly the Liverpool, New York, and Phila-authority of the Roman see, and was delphia Steamship Co., was formed strenuous in enforcing the celibacy in 1857.

Inn, a river in Austria, one of the Inn, a river in Austria, one of the Innocent II. (Gregorio Paparesci) chief affluents of the Danube. It (1330-43) was elected on the death rises in the Engadine, Switzerland, and flows through the Tyrol and to flee from Rome on several occarding to the course being sions, owing to Anacletus having been estimated at about 310 m. Innsbruck elected by a rival faction. is on its banks.

parish has an acreage of 23,981, and is intersected by the Leithen Water There is a medicinal spring containing sodium and calcium chlorides Pop. (1911) 2547.

Inner Temple, sec INNS OF COURT. Innes, Cosmo (1798-1874), a Scottish lawyer and antiquary, born at Durris, and educated at the universities of Aberdeen, Glasgow, and Oxford. First studied law, but soon abandoned the practice, and became known as a student of the ancient records of Scottish history. 1846 to 1874 he was professor of constitutional law and history at Edinburgh. He was the author of Scotland in the Middle Ages; Lectures on Scotch Legal Antiquities; Sketches on Early Scotch History; Scotland in the Middle Ages, etc. A Memoir was published anonymously in 1874 by Mrs. John Hill Burton.

Innes, Thomas (1662-1744), a Scottish antiquary, born at Drumgask, Aberdeenshire. He studied at Paris, and was ordained as a priest of the Roman Catholic Church. His great object in life was to refute the fabulous narratives of Scotland supply a true history in their place. This task he began in his Critical Essay on the Ancient Inhabitants of the Northern Parts of Britain (1729), followed up by his constructive work on the Civil and Ecclesiastical History of Scotland (1853). Prefixed to the

latter is his Life by Grub.

Innocent, the name of thirteen

Innocent I. (402-417), a native of

of the clergy. He was canonised. Innocent II. (Gregorio Paparesci)

Innocent III. (Lotario de Conti) Inner House, see Court of Session. (1198-1216) succeeded Pope Celestine Innerleithen, a par. and tn. of III., and under him the power of Peebles and Selkirk, Scotland. The Rome reached its greatest height. He

A 2

Innocent IV. (1243-54), born at Genoa. He was compelled to leave Rome on account of the quarrel which was being waged between himself and Frederick II.

Innocent V. (1276) was pope for five months, and was a native of Savoy and the successor of Gregory X.

Innocent VI. (1352-62), a Frenchman, and the successor of Clement VI. He brought about a number of Corne in the successor of control of the successor of the reforms in the papal administration, and did a great deal for its benefit.

Innocent VII. (Cosimo dei Migliorati) (1404-6): some writers have given a favourable account of him, but most agree that he was guilty of

nepotism.

Innocent VIII. (Giovanni Battista Cibo) (1484-92) was not a man of blameless life, nor was he a strong

ruler.

Innocent 1X. (Giovanni Antonio Fachinetti) was elected pope in 1591

and died just after.

Innocent X. (Giovanni Battista Pamfili) (1644-55), did something towards reform, and was entirely opposed to Jansenism.

Innocent XI. (Benedetto Odessalchi)

(1676-89), born at Como, 1611. He was a zealous reformer, and most of his time was taken up with the quarrel against Louis XIV., who laid claim to the right of the king to keep benefices open. This led to the benefices open. This led to the Declaration of Gallican Liberties. Innocent XII. (1691-1700) made

peace between France and the Papacy.

Innocent XIII. (1721-24) was under the sway of Spain and France. See C. H. Pirie-Gordon, Innocent the Great, 1907; A. Luchaire, Innocent III., la paupeté et l'empire, 1906.

Innominate Artery, the largest branch arising from the transverse portion of the arch of the norta (q.v.).

Inns and Innkeepers. An inn may be defined as a place for passengers, travellers, and wayfarers. It is immaterial whether the place is called an inn, coffee-house, or by any other name, if in fact it is an inn. An inn is to be distinguished from a tavern, the latter being strictly an alchouse

ned, but place

sale of liquor is not the characteristic of an inn, and there are great numbers of places in this country which are nevertheless inns because they have no licence to sell intoxicants. An inn

exercised his papal jurisdiction over the kings of France and Spain, and compelled King John of England to ment bar attached to an hotel and under the same roof, but entered by bishop of Canterbury.

The content of t The proprietor of a tavern is under no obligation to supply even a traveller with refreshment, and indeed no one has a right to insist on being served in either a tavern or alchouse; but it is an indictable offence, and also actionable, for an innkeeper to refuse to supply accommodation and victuals at any hour of the day or night to a traveller who is ready to pay and conducts himself properly. But the innkeeper may refuse if he has not room, or if the traveller or intending guest is an objectionable person, such as a thief, prostitute, or person suffering from contagious disease. In 1899 an innkeeper was charged with refusing without good cause to supply a lady bicyclist in 'rational' garb with victuals. The jury were directed to say whether the bar parlour (to which the innkeeper had relegated her as a more suitable place than the coffee-room) was a fit and proper place for the prosecutrix, and they decided in the affirmative; but the legal principle whether an innkeeper might refuse altogether to serve a lady in 'rationals' was not and has not been decided. An innkeeper is only bound to receive and lodge a guest so long as the guest retains his character as such. Merely purchasing temporary refreshment or putting up a man's horse is enough to make a man a guest. But in a case that arose in 1913 it was decided that a student who, after paying his bill, left his portmanteau in the lobby of the hotel, intimating that he was returning later for it, was no longer a guest, and could not recover damages from the innkeeper for the portmanteau, which was stolen before he returned. At common law the liability of innkeepers was so wide that a guest could recover for loss or damage to his property in almost all cases where the innkeeper was unable to prove that the loss was due to the guest's default. But by the Innkeepers Liability Act, 1863 (Section 1), an innkeeper is not liable to pay more than £30 for loss or injury to articles or property brought by guests unless the property (1) is a horse or other live animal, or a carriage and gear; (2) was stolen, lost, or injured through the wilful act, default, or neglect either of the innkeeper or his servants; (3) was expressly deposited with him for safe custody. Apparently in this last case the innkeeper may insist on the property being is essentially a place which provides may insist on the property being lodging accommodation for travelsecurely fastened and sealed up in a lers, and this is the element which box or other suitable receptacle. To

keeper must put up in some conspicuous part of the entrance hall of the inn a copy of Section 1 of the Act. If a guest refuses to pay his bill the innkeeper has a lien on his luggage or other articles brought to the inn by the guest, whether such articles are the property of the guest or not. Hence a commercial traveller's stock in trade can be scized. If the bill be not paid in six weeks, the innkeeper has, by an Act of 1878, the right, after advertising in a London and local newspaper his intention to sell, at the end of that time to sell the articles and repay any surplus to the defaulting guest. The Scots law is substantially similar in all respects, and the Act of 1878 probably applies notwithstanding the statutory reference to a 'London 'newspaper.

Innsbruck, the cap. of the prov. of Tyrol in Austria. It is named from the chief bridge over the Inn, on whose right bank it lies. The situation is a splendid one, for the broad valley from which the city rises is guarded on all sides by lofty heights. Here the high roads from Bregenz in the Vorarlberg and from Germany on to Italy over the Brenner Pass cross one another, a fact which accounts for its strategic importance. The interest of the town is mainly archeological. The cenotaph of Emperor Maximilian I. (d. 1519), which, its marble sarcophagus and twenty-eight bronze mourners, is one of the finest illustrations of 16th century sculpture, rests in the Franciscan church (1509-93). There is also a university (originally founded in 1677), and the Landhaus of the Diet is here. Pop. 53,194.

Inns of Court. There are now four I. of C., Gray's, Lincoln's, Middle, and Inner Temple. To become a member of the English bar it is necessary, besides passing certain examinations in law, to be admitted as a tion (q.v.), I. of small-pox was prac-member of and to keep twelve terms tised. The disease as thus transmember of and to keep twelve terms lextending over a period of three mitted was far less dangerous than years) at an I, of C. The I, of C, are the ordinary small-pox, and, further, a kind of legal university of London, rendered the inoculated subject much in which the students and barristers correspond respectively to graduates disadvantages are obvious, in that it correspond respectively to graduates and undergraduates. There were fortended to keep the disease alive, and merly a number of small inns, such tas New Inn, Staple Inn, and Clifford's Inn; all of these have either been been inoculated, and was of great bought up or in some other way acquired by the four remaining I. of C. With the dissolution of the serjeants' inns disappeared the ancient status of 'serjeant,' eternally compared in the humorous characters of Serjeants Buzfuz and Snubbin in the Picturick Papers. All the existing the properties of the service prior to Jenner's discovery. In 1840 the practice of I. with small-principle to that explained above. Inosite, or Hexashydroxycyclohexane.

obtain the benefit of the Act an inn-| from time to time ' benchers' out of their own members to form the executive bodies of the societies. Twenty benchers, five from each inn, co-opted from time to time, form the Council of Legal Education. The benchers may disbar a barrister for professional or other serious misconduct, and there is no appeal from their decision. Intending equity and chancery practitioners usually join Lincoln's Inn, the two Temple Inns being the best for common law busi-ness. Gray's Inn apparently offers the best scope for scholarships and students' prizes. A time-honoured feature of the I. of C. is the keeping terms, not by residence or attendance at lectures, but by 'eating dinners' in the halls, the total number being six for each term; but there are certain exemptions; studentship and first class honours men gaining a remission of two terms, and university men need only dine on three nights each term.

Innuendo, in the language of pleading in an action of libel or slander, means a paragraph in a statement of claim which seeks to put on the words complained of a more defamatory meaning than is warranted by natural construction. The defendant may traverse or deny the I., and at the same time pay money into court by way of amends. But if he adopts this course he must make it clear that the money is paid in by way of reparation for the words in their

a healthy subject by the introduction of certain products of disease into the body through the skin or the mucous membrane. The chief diseases so transmitted in man are anthrax, hydrophobia, small-pox, and syphilis. Before Jenner introduced vaccinaless liable to a future attack.

in the Pickwick Papers. All the existing I. of C. are corporate bodies owning I. of C. are corporate bodies owning the stance, melting at 253° C., that is ing valuable property, and appointing found widely distributed in the

animal and vegetable organisms, persecution, practised ly in conifers. Peligion in secret. A especially in conifers.

especially in conlices.

Inowrazlaw, see Hohensalza.

In partibus infidelium, the Latin for 'among unbelievers,' was, from the 13th century till the pontificate of Leo XIII., part of the description of titular bishops, that is, bishops whose titles referred to dioceses no longer existent. Such bishops first proceed in the days following the appeared in the days following the but they Greek schism, became crusades, one common after the result of which was the formation of many sees in Mohammedan countries. These sees soon ceased to be centres of ecclesiastical authority, when the lands came under pagan sway once more, yet Rome clung to the titles as evidence of past glory. In England bishops of the Romish Church were titular up to 1850.

Inquest, see CORONER. Inquisition (Fr. inquisition; Lat. inquisitio, a seeking or searching for). In ordinary language, particular inquiry, search stimulated by curiosity or hidden motives. In law (1) a judicial investigation, inquiry, examination, an inquest; (2) the verdict of a petty jury under a writ of inquiry. 'An inquisition of office is the act of a jury summoned by the proper officer to inquire of matters relating to the crown, upon evidence laid before them '(Blackstone, Comment. bk. iv. ch. xxiii.). or Holy Office was an The I. or Holy Office was an ecclesiastical tribunal first outlined at the Synod of Toulouse in 1229, and established by Pope Gregory IX. after the conquest of the Albigenses in 1233. A committee consisting of several respectable laymen and the parish priest was ordered to be set up in every parish to search for and bring heretics before the bishops. The bishops were soon replaced by inquisitors specially appointed by the pope from the Dominican and other orders. Persons accused of heresy were examined privately, and if sufficient evidence was found against them they were arrested by the civil authorities and tried. Those found guilty and unrepentant were condemned to death—generally by burning alive; the guilty, but re-pentant, were imprisoned for life. Informers' names were kept secret. intormers' names were kept secret; torture was resorted to to extract confession, and might be used three times in succession. The I. was set up in Italy, Spain and its dependencies, Portugal, and France, but not in England, where heretics were tried by

their According to Llorente, the historian, who was also secretary of the I. in Madrid from 1790-92, 8800 persons were burnt in Spain alone during the cighteen years of Torquemada's tenure of office as Grand Inquisitor. The Spanish I. was suppressed by Napoleon in 1808, revived by Ferdinand VII. in 1814, and was finally abolished by the Cortes in 1835. In France it was responsible for the suppression of the Knights Templars, but soon fell into disuse. In modern times the I. has existed in Rome under the form of the 'Congregation of the Cardinals,' consisting of twelve cardinals, a judge, an assessor, and an advocate, under the presidency of the pope, but its activities are afternoon. ties are confined to the censorship of the press and matters relating to church law and trials for ecclesiastical offences. Owing to the cruelties perpetrated under its auspices, the 1. has come to be regarded almost as a synonym for religious bigotry coupled with the practice of gross inhumanity.

Insanity, unsoundness of mind. is hardly possible to provide a satisfactory definition of I., as it includes many widely differing states of body and mind, and excludes many forms of aberration which are associated with more or less transient diseases. The difficulty of defining sanity is at once apparent when we reflect that no two individuals agree in all their mental processes, and the most we can do is to say that it is possible to set certain broad limits as to what may be called normal mental powers and processes. At the present time, when legislation threatens to set more restrictions upon persons of alleged unsound mind, it is wise and just that a certain charity should be observed in deciding the limits of I. Without entering into a discussion as to the ultimate relationships between mind and body, it is justifiable to assert that the workings of the mind are occasioned by, or are accom-panied by changes in the brain, and, in particular, that outer rind of grey matter known as the cortex. When matter known as the cortex. When any injury is sustained by this organ, or when poisonous matters are carried to it by the blood stream, clinical experience tells us that a disturbance of consciousness occurs. The delirium of the fever patient is due to his brain being temporarily poisoned, and a number of cases of more permanent forms of L can be traced to definite lesions of the brain. Such conditions conforming to Christianity to avoid lessons of the orain. Such conditions the ordinary tribunals. It flourished are often accompanied by purely chiefly in Spain, owing to the numbers of Jews and Mohammedans hypothesis that I. depends ultimately upon physical causes is not altogether conforming to Christianity to avoid unjustifiable.

Causes of insanity.—Mental defect mately cause a physical condition of or disease is associated with some in- the brain involving I. herited or acquired peculiarity of brain constitution. If statistics be of any value at all, the relation of I. to hereditary nervous weakness is well established. The descendant of insane parents may be normal and even extraordinarily capable, but there is great likelihood of some indications of want of nervous balance showing themselves, and his general condition may be represented as a susceptibility to invasion by the agents that produce mental instability, just as a child of consumptive parents, though apparently healthy, is assumed to be less likely than others to resist in-vasion by the tubercle bacillus if he the conditions to become favourable for its development.
ses of I. may
sing stress of

ı fear abroad pidly among other hough statis-real increase tion.

mechanism is being over-wrought in a number of cases. Opinion as to the place of alcoholism in the causation of I. is divided. So many cases show a history of alcoholism, and its effects on the nervous system are so proon the hervois system are so into nounced that many claim alcohol to be the commonest cause of I. On the other hand, the cause may be control which makes the confirmed drunkard is a characteristic symptomic of the confirmed drunkard is a characteristic s tom of an unsound mental constitution. Consanguinity, or marriage of near relations, is adduced as another cause. Here, again, the probability is riage of related persons with a history of mental deficiency; such persons of recurrent I. Mania is charoften are responsible for much larger acterised by exultation; the patient families than the average. The imposing through defective metapoisoning through defective metapoisoning through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or to a chronic subacute bolism or through actual infection by suiter or through actual infection or through actual infection by suiter or through actual infection by suiter or through actual infection or through actual infection by suiter or through actual infection by suiter or through actual infection and progresses either towards or through actual infection by suiter or through actual infection and progresses either towards or through actual infection by suiter or through actual infection by suiter or through actual infection by suiter or through actual infection actual infection by suiter or thro puerperal fever, or syphilitic infec-tion, are undoubtedly due to the presence of toxic substances in the blood. It has been further suggested looked upon as somewhat peculiar by that worry, violent emotion, etc., by his friends. A delusion then sets in; their effect on metabolism induce the patient thinks he is being perse-

the brain involving I.

General symptoms. - The symptoms of I. may be divided into mental and bodily. Of the mental symptoms the most definite are persistent delusions or hallucinations. A delusion is a false idea, as when a patient fancies he is some great personage, or that there is a conspiracy against his life; a hallucination is a false perception, as when a patient sees visions or hears voices which have no foundation in reality. It must not be thought that allinsane persons suffer either from delusions or hallucinations of a definite type. Mental instability shows itself in extreme impulsiveness in action, leading sometimes to sudden attempts at suicide. In some forms of I. it is almost impossible to keep the patient's attention for more than a few seconds, he is at the mercy of every chance impression; on the other hand, some patients cannot be roused out of an obstinate introspection. Memory is often disturbed, being either abolished or restricted to remote events. Of bodily symptoms the most characteristic is sleeplessness, and the recurrence of the habit of sleep is generally a sign of improvement. A rapid pulse-rate and general lack of control of muscles are usually to be found in most types of I.

Classification .- There is great diversity among alienist writers as to the classification of types of I., but the following forms are generally recognised. Mclancholia is characterised by persistent depression. It is often brought about by worry or overwork. There are often hallucinations, the patient does not sleep, the pulse is rapid, and the excretion of urine is disturbed. If the symptoms do not that if the parental history is free abate the patient dies of exhaustion. from I., there is no particular tend- Folic circulaire is characterised by re-If, however, there is I. in the family, the tendency is transmitted in an inthe tendency is transmitted in an inthe tendency is transmitted in an inthe tensified form by reason of both parents being in the line of descent. Mental feebleness is perpetuated in main to melancholia to exultation and then many of our villages by the intermarriage of related persons with a history of mental deficiency; such persons of recurrent I. Mania is characterised by exultation; the patient ency in that direction in the offspring. curring periods of depression or of

The onset tient being changes in the blood which may ulti- cuted by real or imaginary persons. There is considerable danger of vio-, Lunacy has not been approached, a lence, as the patient may attack his supposed persecutors or attempt suicide to escape from them. The The bodily symptoms are indefinite; there is a certain amount of weakness and malnutrition, but few other signs. General paralysis of the insane is a nervous disease caused by toxemia and usually associated with a syphilitic history. Men are attacked more than women, and town dwellers more than country dwellers. The onset is gradual; the patient loses strength. bodily and mentally, and partial paralysis sets in. The speech becomes badly controlled, the whole body is restless, and periods of mental excitement occur. For a time delusions may be entertained, but even these lose their fixedness and the patient advances to utter helplessness and speechlessness. Death may occur from exhaustion or any disease to which his enfeebled condition may make the patient liable.

Treatment. - Each case has its own particular requirements. The bodily health must be kept up by careful supervision and nursing. Curative treatment usually involves some form of persistent suggestion; the patient is provided with occupation suitable to his needs, r

form of organ

not bear on

Asylums for the care of insane are established in suitable cent all the countries of Europe and America, and the general tendency is towards giving the patients as free a life as possible. To this end the modern mental hospital has developed into a kind of colony of detached cottages, farms, and the like. This system is not only more conducive to

Laws rele legislative are contain

1890 and insane person may be administered by the nearest relative on application to the Court of Lunacy. If there is a

ity of the should be nquisition,

position of his proporty if he had been foundinsane.

provides for

reception order must be obtained from a county court judge, stipendiary magistrate, or justice of the peace specially appointed to administer the Lunacy Acts. The application for an order must be accompanied by a statement of the circumstances under which the petitioner makes the application, and by two independent medical certificates. In urgent cases one medical certificate is accepted, but an urgency order only remains in force for seven days or until such time as a regular petition for a reception order is disposed of. In 1912 a Bill was introduced in the British House of Commons to provide for persons who are not actually insane in the legal sense, but are so deficient mentally as to constitute a danger to themselves and the community. The Bill proposed to set up a new authority independent of the Lunacy Commissioners, who should arrange for missioners, who should arrange for the care and supervision of 'defec-tives' not properly cared for in their own homes. The Bill was subjected to a great deal of criticism and did not proceed to the third reading; an amended version was introduced in

See Maudsley, Pathology of Mind, 1895; Mercier, Text-book of Insanity, 1902; and Hack-Tuke, Dictionary of , 1902, which of the legal

of insanity Inscribed Stock. Stock is said to be inscribed or registered when the name of the stockholder is inscribed in the stock register of the state or corpora-tion which has issued it. The holder is entitled to an imaginary sum of money, usually £100, and the right to receive a fixed rate of interest in perthe general improvement, physical petuity. This registration is eviand mental, of the patients, but has been found more economical as well, gives him the right to obtain pay-

of interest. In contradistinction S. is that stock which is issued in orm of bearer bonds with divicoupons attached.

Inscriptions (from Lat. inscriptum; from in, upon; scribëre, to write), the name given to records written or engraved upon stone, metal, or other materials more durable than parch-ment or papyrus. They form in many cases our sole source of reliable

tion regarding ancient civiliand are invaluable as tests of uracy of tradition or of scrip-

provides for provides for provides for provides for product persons, and for the payment to february process. They are found on of debt, but invariably a sum sufficient to maintain the lunatic in the degree of comfort to which he is and they record public events or accustomed is set apart. An order of the court is sufficient to provide for Their translation forms a vast field of the detention of such a person in a labour and research for the student lunatic asylum. Where the Court of and scholar, many having spent

years of patient toil over the decipher- and enable the historian to form a ing of only a few letters, as, for example, the work of Grotefend of Hanover in connection with cuneiform writings. I. are classed according to the language in which they are written, and include Semitic, Egyptian, Greek, Latin, Runic, Cuneiform, and Indian. Some, such as those found in Yucatan and Mexico, are written in unknown pictorial hieroglyphic characters, and have so

far baffled translators. Semilic inscriptions include those written in the Phænician, Assyrian, Babylonian, Aramean, Hebrew, and Arabic languages. The oldest Phœnician I. is the dedication of a bronze vessel from the Baal Lebanon temple in Cyprus of about 1000 B.c. The Moabite Stone (about 890 B.c.) gives an account of the reign of Mesha, king of Moab, and mentions the events chronicled in 2 Kings iii. A fragment remains of an inscription of Harnous temple at Jerusalem, and the Jewish cometeries in various Eastern cities have yielded Hebrew inscriptions. At Palmyra the sculptured tablets which sealed the sepulchres were invariably inscribed, as were also the brackets supporting statues on the many columns of the city. In the great mosque of the Dome of the Rock at Jerusalem is an Arabic I. in Kufic characters. For works Semitic I. see the Corpus Inscrip-tionum Semiticarum of the French Academy, and Schröder's Die Phönizische Sprache.

Egyptian inscriptions. — The an-

cient Egyptians inscribed or painted records upon almost every of material, and employed three forms of writing: Hieroglyphic, in which figures or representations of objects are employed, was mostly used upon temples, tombs, statues, and coffins; Hieratic, the cursive form used by the priests; and Demotic, for general use. The discovery of the Rosetta Stone in 1799 The disled to the deciphering of the hiero-glyphics. The translation of Egyptian I. has since then attracted a large and ever-increasing body of here is scholars now a available or. earliest! hieroglyphics are the names of the kings of the 1st dynasty found at Abydos, and date from about 4700 B.C. Much information regarding the religion of ancient Egypt, annals of kings, and narratives of important events are found upon the walls of temples, tombs, obelisks, as well as upon steel or upright stone slabs. Sometimes, as on the Stele of Piankhi,

fairly accurate idea of the civilisation and culture of the times. See works by Champollion, Birch, Wallis Budge, andF ally,

Greek I. to which a date can be assigned, are records cut by Greek soldiers in the service of the king of Egypt, on the colossal statues at Abu Simbel on the Nile; they belong to the 6th or 7th century B.C. Next in antiquity come the records on the bases of the statues of the Temple of Apollo near Miletus. Copies of treaties between different Greek states were generally engraved on bronze tablets, and hung in temples, and many, chiefly those between Athens and her allies, have been preserved. Greek I. in a very ancient form of writing have been found in Cyprus, and are called Cypriote. More than 10,000 Greek I. have been published in the Corpus Inscriptionum Gracuum of the Berlin Academy.

Latin inscriptions are even more

numerous than Greek, though none are so ancient. They were written in a particular abbreviated form adapted for giving the names and conditions of individuals, stating whether bond or free, from town or country, of civil, military, or religious profession. There were special formulæ for edicts, epitaphs, and dedications. There are about 5000 Etruscan I. extant, which form a separate group and language of their own, and are as yet but im-perfectly understood.

Runic inscriptions are round a veden, Norway, Denmark, and a Scotland. The Sweden, Norway, Denmark, and a few in England and Scotland. The letters are supposed to be derived from the Greek through traders and colonists who settled in Northern Europe several centuries B.C. One of the most interesting specimens is the I. on the Golden Torque found in Wallachia, and belongs to the time of the invasion of the Danube provinces by the Goths in the 3rd century A.D. Among the principal Runic I. found in Britain are those on the Ruthwell Cross in Dumfriesshire and the Bewcastle Cross in Cumberland. See G. Stephens' The Old Northern Runic Scandinavia Monuments of England.

Cunciform inscriptions were written by the ancient inhabitants of Assyria, Babylonia, and Persia, and are wedge-shaped or arrow-headed marks, the exact equivalent of which still forms a field of laborious speculation, and which for many years completely

ical cuncired unon a

the Ethiopian conqueror of Egypt, the minutest details of events are given perpendicular rock at Behistun in

Persia, which gives in three languages | all exhibit a dentition peculiarly well which enabled cunciform to be first deciphered. See The Cunciform Inscriptions of Western Asia, edited by Sir H. Rawlinson and E. Norris.

Indian inscriptions as well as Pall

(the sacred language of the Buddhists of Eastern India) are very numerous, and are found in temples, rocks, and caves. The oldest are the edicts and admonitions of Asoka, the Buddhist king who reigned in the 3rd century B.C. See Corpus Inscriptionum Indicarum, edited by Cunningham; Burgess's Archaelogical Survey of Burgess's Archeological Survey of Western India; Burnell's Elements of South Indian Palwornaphy; and Dr. Isaac Taylor's The Alphabet.

Insecticides are indispensable all farmers and horticulturalists. specially prepared mixture of flowers of sulphur and quicklime in the proportion of one to four makes a good whitewash for fruit-trees in the spring and also effectually prevents blight on pear trees. It kills the insect pests by means of the sulphur-ous fumes, which are given off. An application of lime is similarly effec-tive, and in no way interferes with vegetable growth-a property which is essential to a good insecti-cide. Many recommend dry tobacco-powder or tobacco soaked in hot water; a soft soap solution with one ounce of soap to the gallon; a substance containing arsenic and known as Paris green; and what is called the Bordeaux mixture, which consists largely of copper sulphate. Wasps' nests may be destroyed by pouring a ladleful of tar down the entrance hole when the inmates are at home, and also by a solution of cyanide of potassium (two ounces to the pint). But extreme caution must be observed with this latter as it is a virulent poison. The caterpillars, which attack gooseberries and currents, are best removed by the tedious process of hand-picking, but they will soon die if subjected to a spraying or syringing with London-purple, which is an arsenite of lime, and therefore, like Parisgreen, highly poisonous.
A thoroughly mixed dressing of lime and soot if liberally applied soon gets rid of the saw-fly which eats into pears and cherries. Injections of pure chlorine gas did away with the ant plague at La Rochelle. Fly-tapes and fly-reels smeared with honey-gum or some other sticky substance like treacle and birdlime rapidly reduce a swarm of house-flies.

adapted for eating insects, with tiny conicle tubicles on the top of the molar teeth. Many have a full complement of teeth—incisors, canines, premolars, molars, and even temporary milk molars. The actual number varies with different families, but forty-four is an average total. I. put the greater parts of their soles on the ground when they walk and are therefore said to have 'plantigrade ' feet; there are five toes, each one armed with a claw. They occupy on exceedingly low place in the scale of biological development and are certainly no higher than marsuplals; many zoologists, indeed, regard them as being more or less representative of the primitive mammalian stock; the skull is of a most backward type, and the brain-cavity is relatively small. In habit the I. are, generally speaking, both terrestrial and nocturnal, a few, however, like the Potamogales, are aquatic, and others, like the treeare aquatic, and others, like the tree-shrews or tupaias of India and the Malay Peninsula, are arboreal. Quite a number, as, for instance, the large group of moles, or *Talpidæ*, burrow in the ground. Many fossil I. have been discovered, especially in the Tertiary strata, and more than 200 living species are known. Members Members living species are known. of this order multiply with astonishing rapidity; the hedgehog may have a litter of eight, whilst that of the sometimes numbers twenty. Their muscular system is well-developed; their skin is thin, and the shrews and other species are provided with scent-glands at the sides of their bodies. Australia and S. America are the only large areas of the globe where there are no I., in all other tropical and temperate zones there are many representatives. Insectivorous Plants. One of the

most important of the essential elements of plant food is nitrogen. Usually it is obtained from the nitrates of the soil; parasites receive it from the bodies of their host-plants: leguminous plants living in symbiotic relationship with bacteria probably exchange some of their carbon for the nitrogenous compounds of the bacteria. I. P., however, adopt the simple expedient of entrapping tiny specimens of animal life and absorbing their nutritious juices. A well-known I. P. of S. America is Dionæa muscipula, or Venus' fly-trap. The leaf-blade forms a round flat disc edged with teeth near the apex, and each half is capable of moving inwards from the midrib. Should an insect alight on one of the sensitive hairs, Insectivora (Lat. for insect-eating), from the midrib. Should an insect an order of placental, non-volant mammals. They are small in size, the leaf-blades curl upwards enclosing and derive their name, of course, the creature, and soon absorb the from their common food. One and nitrogen it contains. The mechanism

habit is Pinguicula vulgaris, the butter-wort, a pretty herb with a rosette of pale green leaves growing close to the ground and a flower somewhat resembling a wild pansy. Utri-cularia vulgaris, the bladder wort, is an aquatic I. P., which produces bladder-shaped traps; the insect enters the bladder readily by means of a valve opening inwards, but it is unable to return, and after its death its decomposed elements are absorbed by the cells which line the bladder.

Insect Powder, used for killing flies and other insects. The closed blooms of several varieties of Pyrethrum, for instance, Pyrethrum roscum and Pyrethrum carneum, are reduced to a powder, which if sprinkled on fleas and house-flies, etc., first makes them senseless and finally causes their death. An alcoholic tincture of the powder seems to have the same effect although many deny that the volatile oil is as effective as the dry

preparation.

Insects belong to the invertebrate group of Arthropoda. There are over a quarter of a million species known to-day, and the likelihood is that the study of entomology in the future will reveal many thousands more. Thus I. are by far the largest class of animals, and can further claim a very remote ancestry, as the Lower Silurian rocks in the earliest ages known to geologists bear distinct traces of them.
'A typical I.' stands considerably higher in the biological scale than Peripatus or Myriopods. Its body is enveloped in a horny substance called chitin, and is structurally composed of three segments, which are fre-quently so narrowly united that the It seems cut up into three parts—a phenomenon which has given the class its name (insect. Lat. for 'cut into'). These three divisions are the head, thorax, and abd adult I has wings, with

of the caterpillar, etc., body with only three pairs of loco-motor limbs, whence it is called a Hexapod ('six legs'), and carries on its respiration by means of air-tubes or trachere, whence it ranks with other Tracheata.

Anatomy of insects .- The ' head ' is made of several segments closely united. The mouth is situated at the front, and on the under side, an upper lip ('labrum') being usually provided; it has three pairs of appendages with which it procures and are muscular; those of a daddy-longalso musticates its food. There is also legs, lank and. of course, long, whilst

of Drosera rotundifolia, the sundew common to British moors, is very similar to that of Venus' fly-trap, but it attracts its prey by means of a sticky, glistening, dew-like mucilage. Another common British plant of like the back it is Droserated and the strength of the foot of the foot of the control of t one on either side of the front of the head; between these are the simple-lensed eyes, called 'occlli,' which are often disposed in groups of three and are really only eye-points. A com-pound eye can well be studied in a house-fly, 'Larvæ', that is, young I., have only 'ocelli.' The 'thorax' is made up of three segments, each provided with a pair of jointed legs on the lower surface. Two pairs of dorsal compressed sacs, that is, wings, are fastened to the upper surface of the two latter segments. species there is only a single pair of wings, whilst in others the second is still very undeveloped. The 'abstill very undeveloped. The 'abdomen' has no legs, unless stings, pincers, and other weapons of offence, or ovipositors, be regarded as rudi-mentary limbs. This part of the trunk contains most of the organs. 'Appendages' are of four kinds on the head. Firstly, there are two 'antennæ 'springing from the forehead. These are many-jointed, thin, and long, and have many nerve-endings which make it probable that they serve as organs of touch, by which impressions are conveyed from one I. to another, and perhaps also as organs of smell. Secondly, there are the 'mandibles' or biting and upper jaws, which are simply hard plates adapted for crushing and cutting. Below these are the 'anterior maxille,' Below these are the 'anterior maxime, or lower jaws, which are provided with jointed 'palps,' that is, sensiferous organs, and which often have quite a complex structure. The 'posterior maxille' are the fourth pair of appendages. These also are complex and furnished with palps, and are, moreover, usually united at their base. The mouth is formed of the mandibles, and the two pairs of maxillee, and may be of the sucking or chewing type. Thus moths and or chewing type. suctorial and whilst their manly slightly developed. have become 'pro-

bosces' by being protracted into a spiral tube. The mouths of beetles are masticatory. The trunk appendare masucatory. The Guink appendages are the three pairs of legs already referred to. Each limb is divided into five parts, namely hip ('coxa'), 'trochanter,' thigh ('femur'), shin ('tibia'), and foot ('tarsus') with claws and pads at the extremity. Sometimes there are tarsal hairs and shads which enable the I targing

Skin and glands.—The chitinous cuticle or integument, which forms a kind of ensheathing skeleton, often bears bristles, tubercles, scales, or hairs, the last of which may be sensory or olfactory. I. are subject to moultings and east their whole skins many times before reaching their greatest size. The skin serves as a firm support for the highly-developed muscles which work the wings, legs, trunk segments, and mouth organs, and which further control circulation and respiration. A variety of glands exist in connection with the skin. Bees, coccus I., etc., have wax glands near the bottom of the abdomen or on the back; a number of larvæ, especially such as weave cocoons, have spinning glands opening near the mouth; bugs have odoriferous, and mouth; bugs have odoriferous, and wasps and stinging ants poison, glands, and few I. are without salivary glands, which also open near the mouth.

The nervous system differs, broadly speaking, from that of vertebrates by having a ventral instead of a dorsal nerve cord. The nerve centres, called 'ganglia,' which are simply masses of nervous matter, lie lengthwise along the lower part of the trunk and are connected to

of nerves. Fr

nerves are of them more highly developed than human beings. I. which visit flowers are wonderfully sensitive to fragrance and to colour, and it is largely by smell, it seems, that I. recognise friends and focs. Some entomologists credit them with a sixth and 'dermatoptic' sense, because their skin seems able to appreciate minute differences of light and shade. I. hear by means of nerve-endings, called 'tym-panal' and 'chordotonal' organs, which lie on various parts of the body surface and greatly surpass human beings in their auditory faculties. Many, like ants and bees, which lead a social life, show extraordinary powers of intelligence and ingenuity, especially in adapting fresh means to compass a particular end, and are, moreover, susceptible of strong emotion, as their love-making and maternal affection clearly indicate.

--ntres Theround heart.

the water boatman can swim with his, body's upper surface, and which is a and other insects use them for making tube composed of segments with tube composed of segments with valves between. Behind this tube is a blind alley, but in front it is fused into a fine channel, the 'aorta.' The blood, which is a colourless, pale green, or yellow fluid with amæboid cells, is pumped out from the heart. which contracts into the various tissues until a muscular contraction of the body forces the blood back from the tissues into the heart. Lacunæ, which have no definite walls. take the place of blood-vessels properly so-called.

The respiratory system of I. is remarkably efficient. Air-conducting tubes, called 'tracheæ,' are distributed root-wise all over the body. and open to the outer air by means of paired apertures called 'spiracles,' or 'stigmata.' There are never more than ten pairs, which are variously arranged on breast and abdomen, and are not infrequently protected by hairs. In water I. lateral or terminal expansions, known as tracheal gills, replace the stigmata; the oxygen dissolved in the water can penetrate through their thin surfaces. tracheæ are really ingrowths from the outer cuticle; they are lined with chitin, and appear silvery and glisten-ing; the air is probably driven through them by certain muscular

contractions.

The alimentary system varies with different species and also to some exparts of the body, and in the extreme tent with different diets. The aliparts of the body, and if the extreme tent with different diets. The airront is a larger ganglion, usually mentary canal, which passes from called the brain. From the brain the two nerve chains, or cords, divide so as to encircle the gullet, after which they reunite. As regards their sense pharynx, and gullet compose the organs, it is certain they have some swollen into a kind of 'crop,' the 'honey-stomach' of the bee; sometimes it is prolonged into a gizzard with grinding plates to promote mastication, and sometimes it has a pouch called the 'sucking stomach.' The fore- and hind-gut are lined with chitin; not so the mid-gut. This is a chyle or digestive and absorptive stomach, and leads into the hind-gut or intestine, which is often coiled and glandular; it is longer in I. which take solid than in those which take liquid food. The intestine absorbs and the waste products leave the body by means of a set of winding threads or tubes, the Malpighian vessels, which usually grow from its upper part.

Reproductive system is carried on the paired reproductive organs, products passing out through paired ducts, the vasa deferentia of the male and the 'oviducts' of the or female. The sexes are quite distinct the and differ in other points of structure

USEFUL INSECTS

USEFUL INSECTS

1. Lace-wing Fly—Chrysopa (Notho-trysa) vulgaris. 1.A. Eggs. 1B. Larva.

2. Two-spot Lady-bird Beetle—Coccinella bipunctata. 2.A. Larva, with one enlarged. 3. Seven-spot Lady intale)—Lampyris noctiluca. 12.A. bird Beetle—Coccinella septempunctata. 4. Spiny Fly—Tachina (Echino-tata. 4. Spiny Fly—Tachina (Echino-tata. 4. Spiny Fly—Tachina (Echino-tata) ferox. 5.A. Larva. 6. Hover Fly—Syrphus (Catabomba) pyrastri. pillar of Common Cabbage White 6.A. Larva. 7. Hover Fly—Syrphus Butterfly, with enlarged cocoon ribesii. 8. Hornet—Vespa crabro. below, showing lid. 15. Ichneumon 9. Sun Beetle—Pterostichus vulgaris. Tiger Beetle—Cicindela 10A. Larva, in burrow. besides in reproductive organs. Thus dividually only a very limited food-the female of the butterfly Orguia has a storage capacity. The result is that the capacities the femalenever leaves shape which will allow of its better the grub stage. Males can store up growth and development, and the spermatozoa in packets, and similar form assumed varies a great deal belarly certain females, like the queen tween the different species. The larva bee, can preserve the spermatozoa received from the male for years, so that she can continue to lay fertile eggs long after her last sexual union. She does this by means of an internal seminal storage cell, whilst others of her sex have external egg-laying organs ('ovipositors'), which serve the same purpose. Sexual selection is practised among I., a fact which has probably contributed towards a more speedy evolution of strength and beauty. Sometimes the males fight for some feminine prize, whilst among bees and other I. the wooing is quite an elaborate process, the female in this case choosing her mate. In his La Vie des Abeilles, Mæterlinck gives a poetic description of a queen bee's courtship. Some I. are exceptionally fertile, as for instance, the silk-moth and queen bee; others, among them certain Aphides, are remarkable for parthogenesis, or virgin birth, which sometimes occurs for a limited period only, and is afterwards followed by normal sexual reproduction. A hive of bees usually has only one perfectly mature female, the queen bee; the mass of females who carry on the work have an immature sexual development, and are therefore called neuters.

Metamorphosis is a phenomenon common to the majority of I. How-ever, among Collembola and Thy-sanura the young, which, as with most I., are hatched from the eggs of the mature female, the young differ from the adults only in point of size, and even among lice, locusts, cock-roaches, and many bugs, the only distinction between the infant and parent is the immaturity of the reproductive organs. These species are aucuve organs. These species are therefore said to be 'ametabolic,' that is, not subject to change. Cicadas, Ephemera, and dragon-flies, on the other hand, are classed as 'hemimetabolic,' being subject to partial change. Thus a larva of the citadas lives on the ground and he cicadas lives on the ground and has anterior limbs suited to burrowing, whilst fully grown cicadas live among whilst fully grown cicadas live among grass. The dragon-fly is, of course, winged and acrial, and breathes with open air-tubes, but its larva lives in the water, and has tracheal gills for respiration. But a large number of species, including house-files, beetles, and butterfiles, are 'holo-metabolic' or subject to complete transforme. or subject to complete transforma-glassy and membranous wings, a tion. The eggs are deposited in such complete metamorphosis, and a large numbers that they have in-mouth of the biting type. 3. Lepi-

tween the different species. The larva of a fly is a maggot, which has no distinct head; that of a bee is a grub, whose head is clearly marked; and the caterpillar is the embryo butterfly. The normal growth of a larva of this class is as follows: A first, after it has emerged from its shell, it is converting and greath for food. The very active and greedy for food. The body is segmented and supplied with all the organs except the sexual; all the organs except the sexual; there are no wings nor compound eyes. In every larva, moreover, what is known as the 'fat body,' that is, a mass of fatty tissues in the trunkcavity, is peculiarly well-developed. Here, after a busy life of moulting and growing, it accumulates stores of reserve food for use during the component retexperibetic. ing metamorphosis. Larvæ for the ing metamorphosis. Larvæ for the most part crawl about, and to aid them in movement they have from two to five pairs of 'pro-legs,' that is, foot-like processes, towards the back. The period of change is called the pupal or chrysalis stage. Some larvæ, such as that of the silk-moth, spin account of silk to cerve as 'c shelter. cocoons of silk to serve as a shelter during the metamorphosis. The larva now becomes a 'pupa,' which is quiescent and cannot absorb food, but sometimes, as with dragon-flies but sometimes, as with dragon-files and grasshoppers, the larva is transformed into a 'nymph,' which eats and continues active. Wings grow, and, what is still nore marvellous, there is gradually taking place a complete construction of the internal structure of the former larva. Ameboid cells are fashioned out of the larval orange and upon the ruin of larval organs, and upon the ruin of larval organs, and upon the rum of the latter there grow new structures better adapted for the changed life that is to come. Finally, the pupal husk is broken, and there emerges the 'imago' or perfect, though miniature, I. The task of reproduction natur-ally rests with the fully-grown I., which sometimes dies efter it is which sometimes dies after it is completed, as the sexual organs of larvæ and pupæ are almost invariably imperfect.

The classification of insects is based The classification in threeters is based upon variation in structure, especially upon the various types of wings and mouth arrangements:

1. Aptera' (wingless): sugar-lice and springtails. There is no metamorphosis. 2. 'Neuroptera' (nervewinged): May-flies, caddis-flies, scorpion-flies and dragm-flies white pion-flies, and dragon-flies, white ants, and book-lice. These have four doptera' (scale-winged); butterflies These have four wings and moths. with delicate, coloured scales and a complete metamorphosis. The mouth is furnished with a proboscis, and the larumined with a process, and the larve are characteristic. 4. 'Orthoptera' (straight-winged): earwig, cockroach, locust, grasshopper, and cricket. These are 'ametabola,' have 'cerci' appended to the abdomen, and have the front pair of wings leathery and smaller than the back wings. 5. Hymenoptera' (membrane-winged): wasps, bees, and ants. Their mouths are both biting and suctorial. They have four transparent, membranous wings, and undergo ent, memoranous wings, and undergo a remarkable transformation. 6. 'Diptera' or 'Flies' (two-winged): housely, horse-fly, and bluebottle-fly; gnat, daddy-longlegs, and mosquito. Their metamorphosis is very complete; their mouths are mostly suctorial; their two wings are transparent and membranous, and their larves are both legices and headless (maggata). both legless and headless (maggots).
7. 'Hemiptera' (half-winged): aphis (green-fly), cochineal insect, water-boatman, lice, bugs, and cicada. These undergo slight metamorphosis. have suctorial mouths, and four wings, which is either membranous or horny with a membranous apex. 'Coleoptera' (sheath - winged): water-beetle, stag-beetle, and tigerbeetle, etc., glow-worm, and cockchafer. Members of this class experience a complete transformation and have biting mouths, but their salient characteristic is the horny sheath ('elytra') of which their front or upper wings are composed, so that the delicate membrane of the hind or lower pair is quite hidden from view. Life and general characteristics.

I. have most diverse haunts and frequent underground caves, hot springs, and even the sea; nevertheless, the majority are aerial and dwellers on land. In tropical and temperate climates they abound, but they are represented even in the polar regions. Many, as, for instance, the pond-skater, whirligig beetle, water-scorplon, and gnat, are aquatic for the earlier days of their life. Generally speaking, adult I. are short-lived and die within a twelvemonth; the adult Ephemerid, as its name implies, does not live beyond twenty-four hours, but the queen bee flourishes for some years, and a queen ant will rarely last for thirteen. The food of insects is very various. Some steal the pollen and nectar from the flowers: others feed on weaker species of their own kind; others act as internal or ex-ternal parasites of higher animals; others again grow fat on putrescent matter, and yet another section suck | Elephantiasis arabum, and the bite of

juices from living organisms. Parents will often gather a store to feed their young, even though they themselves die before the larvæ are hatched. A number of I. are able to express sorrow, anger, or fear, or to convey in-formation or make love by means of sound. This may be produced by the rubbing together of the rough surfaces of the outer cuticle, or by the buzzing vibrations of leaf-like appendages near the stigmata of the airtubes, or by the quick flutter of their wings. Thus grasshoppers scrape their legs against their wing ribs and male crickets chirp by rubbing their wing-cases together. Many Hymenoptera produce their noise by the second means, whilst the whirring sound of bees and flies is due to wing motion. The death's head moth emits a noise by blowing air out of its mouth. Sometimes the noise is purely auto-matic. If left unchecked I. would multiply with an alarming rapidity. Fortunately, however, the difficulty of obtaining food, inclement weather, and the predilection which birds, anteaters, frogs, and fishes, show for them as food, counteracts their amazing fecundity. As with higher animals, so certain I, are naturally protected by having an outward appearance which exactly counterfeits their actual surroundings. This is the case with moss and leaf I. and with humming-bird moths. Other I. are saved from molestation by disgusting fluid discharges, an unpleasant smell, a hard skin, or an offensive weapon like a sting. The social species, ants, bees, termites, and wasps, offer a most instructive and fascinating field for study by reason of their intelligence, architectural skill, and developed communistic life.

Economic value.—Unconsciously, I. play a great part in the cross-fertilisation of flowers as they carry pollen from one bloom to another. The 'myrmecophilous' (ant-loving) plants are actually guarded by ants from other and hostile intruders. Man owes a debt of gratitude to the hivebee for its honey and wax, to the silk moth for its silk, and to the cochineal I. for a dyc. But there are many species which seem purely harmful and destructive. Cattle, sheep, and horses are annoyed by the bot-fly; crops, orchards, and vines are a prey to a whole army of greedy parasitic I., and the havoc caused by a locust swarm is often untold. House flies are strongly suspected as the agents which carry pathological or disease-bearing germs in a number of infectious outbreaks; the mosquito is probably largely responsible for the horrible disease

the tsetse fly is often fatal. It is un-necessary to enlarge on the local over others. In regard to gratuitous irritations produced by lice, fleas, alienations at common law, it is to be and gnats.

Bibliography. -- W. Houghton. Sketches of British Insects, 1888; Lord Sketches of British Insects, 1888; Lord Avebury, Origin and Metamorphoses of Insects, 1888; L. Figuier, Insect World, 1892; E. Selous, Romance of Insect Life, 1906; A. Forel, Senses of Insects, 1908; V. Graber, Die Insekten, (2 vols.), 1877; Packard, Guide to the Study of Insects (New York), 1878. Insessores, a Latin word meaning 'perchers,' which is sometimes applied to the large order of birds which

to the large order of birds which Cuvier called 'passerine' or 'sparrowlike.

In-Shan Mountains, a range in Mongolia on the N. side of the Hwango. They rise to an altitude of from 5000 to 8000 ft., and are a part of the extensive Khingan mountain-chains or table-lands of Eastern Asia, separating Mongolia from Manchuria.

Insolvency denotes inability to pay one's debts. The term, so far as English law is concerned, is for most Engish law is concerned, is for most practical purposes replaced by the term 'bankruptey' (a.v., and on the old distinctions between I. and bankruptey). In Scots law bankruptey is hardly a term of art, except in the phrase notour bankruptey, which implies a condition of I. attended with pattern is that they effects restriction. certain statutory effects restricting the insolvent's power of dealing with his property, but it is also commonly used in connection with the public bankruptcy process of sequestration or cessio, under which an insolvent yields (cessere) his property up to his creditors. Taken in these latter senses the term does not differ essentially from the state of a debtor who has been adjudicated a bankrupt under English law. The importance in Scots law of the condition of I. as distinct from bankruptcy which has become public, is that it has certain special effects on the debtor's power of granting alienations. Practical I. is said to exist where the debtor cannot meet his obligations as they fall due; absolute I., where at any time his total assets fall below the sum of his present and future liabilities. Usually creditors only concern them-selves with the former. The most selves with the former. The most important general effect of I. is that it is a step in the direction of notour bankruptoy, it being a necessary condition to obtaining a cessio bonorum. The special effects of I. above alluded to are, that the insolvent is restrained from depleting an estate or fund insufficient to meet all claims by voluntary or gratuitous alienations, or by alienations made for an inadequate consideration (q.v.), or by sacred and canonical by the church,

alienations at common law, it is to be observed that the alienation can be impugned or 'challenged,' even if the debtor was not actually insolvent before granting it, and although such alienation was the direct cause of his I. Any direct or indirect benefit given by an insolvent to a particular creditor or creditors so as to disturb the equality among the creditors generally, may be challenged as a fraudulent preference at common law, e.g. by a mortgage or other security to secure a debt hithertounsecured. A trust deed providing for equal distribution among creditors is valid, but if a number of creditors, without legal warrant, obtain part of the insolvent's property and agree to contribute towards increasing the dividend out of the residue, any creditor who was no party to the arrangement can claim the restoration of the assets so taken or their equivalent in value, or, in the further alternative, full payment of his debt. I. also restricts an insolvent's power of sale. A seller on credit who learns of his buyer's I. may suspend execution of the contract, and stop delivery or recover possession of the goods even in transit. It is also thought that the I. of a partner is a ground of dissolution of the partnership, and the creditors of an insolvent partner are entitled to take his share of the partnership assets. The only courses open to an insolvent, failing his inability to regain his solvency, are to go through with his public bank-ruptcy and sequestration, or to try and arrange some voluntary or extrajudicial arrangement of a more or less private character.

Insomnia, see SLEEP. Inspectors, Factory, see FACTORY AND WORKSHOP ACTS.

Inspiration (Lat. inspiratio, from inspirare, to breathe into), a term used in theology to denote that Divine influence on the writers of the Bible by means of which their writings became a Divine revelation.
All orthodox theologians are agreed
in regarding the Holy Scriptures as
the revelation of God in some sense, but there is much difference of opinion as to the method and extent of the Divine inspiration. The dogmatic formula of the Church on the subject, to be traced through various councils and writers from a very early date, simply states, Deus est auctor librorum sacrae scriptura, but this general statement is explained with some detail at the Vatican Council, where it was pronounced that the Scriptural writings are held as

'not because after being composed by | Canon of the New Testament; W. merely human industry they were | Sanday's Inspiration, articles on simply because they contain Revelation (A. B. Davidson), and simply because they contain Revelation (A. E. Garvie), in tion without any error, but because, Hasting's Dictionary of the Bible. tion without any error, but because, being written under the inspiration of the Holy Ghost, they have God for their Author.' The Roman Catholic Church continues to hold more closely Church continues to noid more closely to the traditional theory of I., that generally known as verbal or mechanical. This theory was also held for centuries by Protestants in an even more rigid form. This view does much to remove all variety and individuality from the writers of the sacred hooks making them mere sacred hooks. sacred books, making them mere instruments upon which the breath of God plays. Their words are to be regarded as the very words of God as certainly as if a voice had announced them from the skies. It is evident that such a theory as this could never withstand the touch of scientific criticism (see HEXATEUCH), but its impracticability should have been evident even without this. Such a theory of verbal I, throws the whole weight of authority on the autograph MSS., which in no single case are extant, makes translations, and which must ever be more or less inaccurate, somewhat dangerous. The theory of dynamic I. in its various forms is that now generally held. It is that the writers did not lose their own individuality, but were so under the influence of the Spirit of God that they could make no error in transmitting to mankind the truths which they were intended to convey. But their method of doing this was their own, regulated by their own thoughts, circumstances, and modes of expression. Many hold that the Divine I. in no way affected the form in which the truths are cast: others, relying somewhat on the Schoolmen, hold that God 'assists' the writers in thus enabling them to choose modes of expression which will inmodes of expression which will infallibly convey the requisite truths, lest these might otherwise be improperly expressed. The theory of dynamic I. finds ample support in the numerous instances of instinctive the Fathers. 'The Gospel,' says St. Jerome, 'is not in the words, but in the sense—non in superficic sed in medulla.' Similarly, St. Augustine speaks of the writer as 'inspired by martins, and swifts, all of which in speaks of the writer as 'inspired by martins, and swifts, all of which in speaks of the writer as 'inspired by tender young, leaving them to perish the migratory I. of swallows, house God, but yet a man—inspiratus at tender young, leaving them to perish the own to be supported by the most of the perish theory is tender young, leaving them to perish the own to be supported by the most of the perish the peris speaks of the writer as inspiratus a migrating, frequently described by but yet a man-inspiratus a migrating, frequently described by because home. This theory is tender young, leaving them to perish Decosed tamen home. This theory is tender young, leaving them to perish of essential miserably in their nests. Doubtless miserably in their nests. Leo sed tamen homo.' This theory is tender young, leaving them to provide the control of the con

Instalment System affords an easy and attractive means of paying by degrees for articles which men with limited incomes would often debarred from buying, were it necessary to pay the lump sum down. Retail traders, moreover, find it a profitable system, as by waiting, they get considerably more than if paid by cash. It is largely resorted to by furniture dealers, drapers and clothiers, and newspaper proprietors, etc., who wish to dispose of encyclo-pedias and complete works of standard authors.

Insterburg, a tn. of E. Prussia, on the R. Pregel, 57 m. E. of Königsberg. It has iron foundries, tanneries, and breweries, and manufs. machines and tiles, leather, hides, and linen. Pop.

Instinct. Every one may be said to understand in a general way what is meant by I., despite the difficulty of formulating any satisfactory definition, and, although Darwin himself, whose examination of the various distinct mental actions commonly embraced by the term, refrained from any attempt at definition. Is. may. however, be tentatively defined or rather described as those congenital or natural attributes of the mind which, though closely assimilated to are distinct from habit, and which impel an animal under given circumstances to act in a certain way without experience, and frequently without a knowledge of the object with which the action is done. Older psychologists indulged in the vaguest generalities on I., Scaliger, e.g. con-

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established indirectly the probability of the Stoic creed almost beyond doubt. His revolutionary theory of the origin of species by the process of natural selection (see DARWINISM) is invoked in the explanation of the genesis of all the simpler instinctive actions, while he derives complex Is.

action. He agrees that just as modifications of coporeal structure arise from, and are increased by, use or habit, and are diminished or lost by disuse, so it has been with Is., but believes that the effects of habit are in many cases of subordinate importance to the effects of the natural selection of what he calls spontaneous variations of Is., or variations produced by the same unknown causes which produce slight deviations of bodily structure. With Darwin, habit plays a part of purely secondary importance once the position be accepted that Is., like bodily structures, vary slightly, by however infinite gradations, in a state of nature; and there is then no difficulty in accepting his inference that, under chang-ing conditions of life, natural selec-tion accumulates slight modifications of I. which are in any way useful. One curious discovery Darwin made, which corroborates his general theory of the source of I. was, that no I. can be shown to have been produced for the good of other animals, though animals take advantage of the Is. of others. He cites Huber's instance of an approachty abunitation of the standard of the standa an apparently altruistic I., in the voluntary yielding by aphides of their sweet excretion to ants; but infers that, as the excretion is extremely viscid, it is a matter of convenience to the aphides to have it removed. Darwin, however, admits that no instinctive or, as we should say, congenital character is universal, and quotes Huber's aphorism to the effect that a slight modicum of reason comes into play, even with animals low in the scale of nature. There is no doubt Darwin was as impressed as Cuvier with the close approximation of I. to habit, and, if he were forced to concede that the majority of Is. were acquired by habit in a single generation and transmitted by inheritance to succeeding generations, a serious blow would be dealt to his general theory. He allows that some habitual

assumptions of any kind, may be said habit generally to natural selection by his comprehensive inquiry to have by postulating the probability of inherited variations of I. in a state of nature, adducing in support the Is. of animals under domestication, e.g. the fact that young pointers will point and back other dogs the very first time they are taken out, and that shepherd-dogs evince a tendency to run round, instead of at, a flock of actions, while he derives complex is, run round, instead of at, a flock of by a similar process, namely, through sheep. From such instances as these the natural selection of variations of the concludes that under domesticathe simpl his celebr and the constant of the simpl his celebr natural Is. lost, partly by habit and partly by man's artificial selection as the cause of apparently instinctive during successive generations of action. He agrees that just account of the simple selection as the cause of apparently instinctive during successive generations of action. certain peculiar mental habits and actions. In the Descent of Man Darwin argues that there is no fundamental difference between man and the higher mammals in their mental faculties, and that between man and the lower animals there are some few Is. in common, such as that of selfpreservation, sexual love, and the love of the mother for her new-born offspring. But he pronounces no that

> admitting that the higher animals display comparatively few and simple Is. in contrast with those of the lower creations. It is in the relation of I. to intelligent action that the theory of natural selection as applied to man becomes so difficult of acceptance. No one can deny that there is a subtle interaction of the one with the other. Herbert Spencer sees the first rays of intelligence through the multiplicaand co-ordination of reflex actions, or those actions of the motor nerves which are immediately consequent upon some external stimulus, and which objectively appear to be mechanical. But most psychologists and physiologists agree that the reflexes are more or less entirely independent of mental influence. Darwin considers that many of the simpler Is. graduate into reflex actions, and are hardly distinguishable, but insists on the origin of complex Is. independ

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1890. and before about August Weismann published his Essays upon Heredity and Kindred Biological Problems, Darwin's theory in its integrity was very generally accepted by evolutionists. After Weismann wrote, it became a great issue whether the adaptive changes which are produced by natural selection, aided in its operation by the inherited effects of use and disuse of organs and actions are inherited, so that that by environment, could really be mental quality which was originally transmitted to progeny, and so enure an I. becomes a habit, but relates to the adaptation of different species

to the different conditions of life, and nowhere else.' This, it is sub-Weismann in his germ-plasm theory mitted, misses the subtlety of Darflatly denied that acquired characters were transmissible. This theory of the germ-plasm, like the later and startling analysis before the British Association by Professor Schaefer (see DARWINISM) of the living properties of chemically produced protoplasm, is far more ambitious than any theory formulated by Darwin, in that it seeks to go back almost, if not quite, to the origin of life itself. Darwin expressly abstained from any attempt to define a life-giving principle, and took refuge in the apparent spontancity of variations, whether of corporeal structure or of the special case of instinctive action. Weismann sees in the germplasm, or nuclear material of chro-matin, all the potentialities of life, regarding it as capable of expansion without essential alteration of character, while each individual life is nothing more than a nucleated cell or combined masses of germ-plasm broken away from the primordial stock. It follows, both from the immortality of the germ-plasm and the existence in embryo, as it were, of the individual in the parent or hereditary mass, that the progeny or subse-quently developed individual could acquire none of its qualities from the mother; because en hypothesi, the masses for progeny and mother could be separated before the latter had developed such qualities. Romanes, too, rejects the idea that natural selection alone is an adequate explanation of the origin of all Is., and thinks that the refined and complicated nature of most Is, can only be ascribed 'to intelligent and intentional adjustments of action on the part of the ancestors of the animals which now present them—adjustments intenti

become the species, owing to their continued repetition in successive generations.'
But he cites the curious 'posturing' I. of caterpillars which so resemble the twigs of trees in their form and colour, that they accentuate that resemblance by standing up motionless, and so avoid capture by birds, and allows that such an I. could only have been due to the law of natural selection. The I. of the sphex in sting-

ascribed to natural selection. But the only reason he can advance for his objection is that the 'chances must against a merely fortuitous variation, cine; Spencer, Principles of Psychoconferring a tendency to sting a lopy; C. Lloyd Morgan, Habit and caterpillar, in its nine nerve-centres. Instinct, Animal Behaviour.

win's explanation. Such an I, is no more fortuitous in its origin and development than the marvellous I. of constructing cells for the secretion of honey, and it seems that all such Is. may well be explained by natural selection having taken advantage of an infinite succession of slight modifications of simpler Is. Opinion at the present day is divided on the whole question of the origin of I., though it seems to be very generally held that 'congenital characters,' as opposed to 'acquired,' are alone instinctive, and that the latter are referable to intellectual operations Wallace foilows his confrère Darwin: Romanes, as above indicated, thinks both natural selection and inherited habit are assignable causes. The latest authority, Lloyd Morgan, appears to incline rather to natural selection so far as congenital characters are concerned, but complicates the matter by his own curious speculations as to the influence of heredity. Briefly, his view, which is really a reversion to Cuvier's belief in the inverse ratio of I. to intelligence, with a novel element superadded, is that the more highly a race has become developed in point of inherited 'plasticity of behaviour,' the less becomes 'the definiteness of instinctive response.'
But upon any hypothesis of origin, there must always exist an unbridgable gulf between I. and the moral sense. This sense admittedly affords the strongest distinction between man and the brute creation, and the Darwinian view that the social Is., aided by active intellectual powers and the effects of habits, naturally tend to that altruistic rule of conduct which lies at the root of morality, seems artificial. For if the lower animals possess the social I., as many species undoubtedly do, why should they not be capable of developing relating activities of the mind to such a degree as to conduce to the evolution of a moral sense? The investigation of such a problem would inevitably lead to an inquiry into the difference be-tween vitality and that which we know as 'soul'; a difference the existence maintained b: other which modern man seems destined never to know anything certain. Origin of · Romanes. ls, Natural nstinct, in

Institute, in Scots law, the person in a deed of settlement or other instrument by which lands are granted (see GRANT), who takes the first or earliest estate (q.v.), or interest is called the I. Those who follow the I. are called the heirs or substitutes. If the I. dies before the disponer or grantor, the first substitute or heir takes without a service (process in Chancery upon a Italy. le of an to the heir). stitutes. grant unless the grantor has made it clear that the I. is also to be bound. See Bell's Dictionary; Erskine's Prin-

ciples. Institute of France, see ACADEMY. Institutes, a term borrowed from the civilians (civil law) to denote text-books containing the fundatext-books containing the funda-mental principles of a legal system. The I. ascribed to Gaius were discovered accidentally by Niebuhr at Verona, and on translation at once became a leading feature of the study of Roman law. Gaius' I. were found to be the basis of Justinian's I., which, with modifications to suit subsequent changes in the Roman law, are a mere imitation of the earlier I. Justinian's I. were expressly published to promote the study of legal principles. The four volumes of Commentaries upon the Common Law, written by Coke were by him called I. Such a term might also be applied to the commentaries of Blackstone and Stephen, and with greater appropriateness, for there is next to no scientific arrangement or comprehensive exposition of principles in Coke's work. John Erskine of Curnock, professor of law, wrote an Institute of the Law of Scotland during the first part of the 18th century, and this book was for long the leading text-book on Scots legal principles, and is even now often cited.

Institution, one of the necessary parson underwriters or vicar. I which comes after the taking of holy orders and admission by the bishop of the patron's originating from a certain coffee house presentation, is a kind of investiture in Abchurch Lane, where the original restriction and the subthe king be the patron), and the incumbent may then enter on the parsonage-house and glebe, and take the tithes. But he cannot grant or let the tithes until induction, the last step in the process of becoming a parson or vicar. See Blackstone's Commentary, and Burn's Ecclesiastical

Law

Instrumentation, see ORCHESTRA. Insubres, a Gallic tribe who crossed

the Alps, and were firmly established in Cisalpine Gaul by the later 5th century B.C. Shortly before the first Punic War the Romans reduced them to submission, but they regained their liberties after Hannitally. In 196 B.C., however, they finally lost their independence, for the Romans were by that time free.

Insulator, see Electric Carles.

Insurance, a contract under which one party undertakes for a considera-tion to indemnify another against certain forms of loss. In the present day the practice of I. has become so general that practically every con-tingency which may arise as the result of accident may be covered, but the capilact and meet widely but the earliest and most widely practised forms of I. are 'Marine,' which applies to ships and property at sea; 'Fire,' which is the I. against fire of property on land; and 'Life,' This last differs from other Is. in that, although a contract to indemnify against loss by premature death, at the same time it provides a certain benefit. For this reason life business is sometimes referred to as 'assurance,' as distinct from 'insurance,' in the provided in the contract of the ance,' but there is no rule for this, and the terms 'insurance' and 'assurance ' are synonymous in the trade.

The first I. business to be practised was Marine, and the I. of ships and property at sea dates from so early a period that it is impossible to ascertain exactly when it was first intro-duced. It is probable, however, that for commercial purposes it originated in Flanders, being introduced into England early in the 16th century. Marine business differs in one notable respect from other Is., in that, although it is done by a number d is even now often cited.

of independent, self-contained comInstitution, one of the necessary panies, a large share is transacted by

Its purpose is the entrusting to the arranged by a committee, and the subcharge of the incumbent (q, w) the scribers include the companies who care of the souls of the parish. I. also transact the business. The fills the vacant benefice with the society has agents throughout the result that no fresh presentation can world who keep in touch with the be made until another vacancy (unless shipping at all the principal ports, and the king be the patron), and the render an account of the same, together with particulars of any casualties which may have happened. An I. is divided amongst a group of underwriters, each holding a small proportion of the total amount at risk. Policies are issued to cover vessels, their freight and cargo, against all maritime risks, which include risks of

navigation, fire and seizure, during a the 'tariff,' and although certain period, not exceeding one year, or for a specified voyage. The I. covers the ship or cargo, and includes the cost of the I. upon the whole. Policies may be 'time' policies or 'voyage' policies, as specified above, and are either valued, in which case the sum insured is based upon a specific bill of lading, or open, when the value of the vessel is estimated as at the date of sailing, plus the amount she would have earned on the completion of the voyage and the cargo at its invoice price. The settlement of marine losses is of particular interest, as the question of salvage following a loss sometimes presents considerable difficulty. It frequently happens that a vessel carrying a valuable cargo is sunk where it is possible to salve a portion of the goods insured, and in such a case there are varying methods of effecting a settlement of the claim, and several courses open to adoption by the underwriters. For instance, they may pay a total loss and recover what they can of the salvage, themselves arranging with a firm to conduct the operations, or they may pay the insured's actual loss, after deducting the value of the goods salved, plus the expenses of the operations. The destructible nature of the goods insured is, of course, the principal factor, and the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the L. is largely affected by the cost of the fected by this, but when the difficulty o which the

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value of the cargo, are taken into consideration. it will be readily understood that the settlement of marine losses is a matter requiring the nicest

judgment.

Fire insurance was first introduced into this country more than two hundred years ago, being practised later on the Continent and in America. On its first introduction it was a subiect of taxation, the amount of the tax, at one time as much as 3s. per cent. on the sums insured, varying until 1865, when it was finally abolished. The fire companies, which at one time confined themselves to this class of business, have now generally entered the field of accident 'business, and for the most part , combine all branches of I. In order to arrive at adequate rates it was necessary to obtain records of the fires affecting the different risks throughout the country, and it will be seen that the experience of one company was not sufficient for this purpose. Con-sequently a ring was formed amongst the various offices, in order to obtain the necessary records from their com-

several offices have sprung up in recent years outside the ring, fire rates are still founded on the tariffs, which are drawn up by and are binding on the tariff offices. Practically every description of property is insurable against fire, the rates of premium varying according to the hazard of the risk. For example, private houses and their contents, public buildings and property of a like nature, where the risk of an outbreak of fire is slight, are considered non-hazardous and rated accordingly, usually at about 1s. 6d. per cent. On the other hand, factories manufact

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usual fire risk, are deemed hazardous and are rated according to their merits. Securities, bonds, bills, manuscripts. and money cannot be insured against fire, as it will be seen that no actual value can be attached to a document itself as such, and only the actual value of the damage done by fire can be recovered under a fire policy. When insuring books of account, it is usually stipulated in the policy that only the amount expended in the work necessary to replace the same can be recovered. Pictures and works of art can be insured, the company generally requiring to be satisfied that the sum for which the special work is insured represents its real value. The same property cannot be fully insured in two or more offices at the same time, for the obvious reason, that unless some special precautions were taken in this respect, there would be nothing to prevent a dishonest person insuring the same property in two offices and profiting by a fire. Consequently the insured has to declare in case of loss, that the risk is not covered elsewhere, or if there are two policies in force through any cause all the offices on the risk share the loss between them in proportion to the amounts they have on the risk. Premiums upon fire policies are generally paid yearly, the I. dating to one or other of the quarter days. When the policy becomes due for renewal it is customary for the insuring office to send a notice to the insured person and to allow a period of fifteen days' grace, during which time the premiums may be paid to keep the policy in force for the ensuing year. Where property insured against fire is not confined to a building, for example, timber and other goods on docks, wharves, and quays, or where two or more buildings or their contents are insured in one amount, the I. is made 'subject to average, bined experience. This is known as which clause runs: Whenever a sum

thereby shall at the breaking out of any fire, be collectively of greater value than such sum insured, then the insured shall be considered as being his own insurer for the difference, and shall bear a rateable share of the loss accordingly.' The necessity for this clause, where property is insured as described above, is readily under-stood when it is considered that it is beyond all probability that a fire should break out and destroy two or more distinct buildings having the same owner at the same time, or destroy the goods of one owner at various wharves by one fire, and knowing this an owner would insure the two or more buildings for the value of one, or the whole of his merchandise for the value of a small portion of it were it not that the companies protected themselves by the average clause, which ensures an adequate premium for the amount at There are many other instances where the average clause is applied, but its principle object is as described above, and it is not generally applied to the contents of a specific building, nor to the building itself. The special condition of average is a similar clause, but requires that the property shall only be covered up to three-fourths its value, and not its full value, as in the case of the This ordinary condition of average. clause is also very commonly used notably for farm stock Is., covering agricultural produce over a whole farm. Fire policies extend to cover loss by lightning, but do not cover the following: Loss occasioned by invasion, insurrection, riot, subter-ranean fire, and explosion, except loss or damage caused by explosion of illuminating gas, elsewhere than on premises in which gas is manufactured or stored, nor do they cover loss to property occasioned by its own fermentation or heating. considerable improvement made in recent years in the equipments of the free brigades, which, it may be noted, are partially maintained by the fire insurance companies, has had a marked effect on rates. Moreover, to lessen the risk many properties are now built of fire-resisting materials, and a considerable discount is allowed off the ordinary rates in such instances. Fire-extinguishing appliances have greatly improved, and elaborate extinguishing appliance known as a sprinkler is now largely employed in buildings which, owing to the hazardous nature of the trade carried on in them, were formerly with the Board of Trade, as a security heavily rated by the offices. As much to policy holders, and that they as 40 per cent. off the ordinary should publish an annual balance

insured is declared to be subject to premium is sometimes allowed for a average, if the property covered sprinkler installation.

Following upon fire business there has come about a comparatively new form of fire I. in the shape of 'loss of profits,' otherwise known as 'consequential loss.' As described above, a fire policy only covers the actual damage caused to property by fire, but it is well known that the loss experienced through inability to execute orders, or to replace stock following a fire is frequently as great to a large business firm as that caused by the actual damage to property.
As its name indicates, loss of profits I. covers this loss following a fire, and the modern scientific method of transacting the business may be briefly stated as follows: The sum insured represents the estimated annual profits, including an amount for standing charges, which may have to be continued even though the premises be standing idle—for instance, rent, rates, taxes, salaries to permanent staff, directors' fees, etc., and in the event of a fire, it having been ascertained that the amount of profit insured is not in excess of the net profit earned and the standing charges declared for the year previous to the fire, the settlement is arrived at by paying a percentage on the difference between the turnover during the months following the fire, and the corresponding months in the year previous to the fire. The percentage paid is that which the sum insured bears to the turnover for the whole year preceding the fire. A simple but less satisfactory method of transacting the business is to insure for a percentage of the total fire loss to represent profits, but as the loss in profits cannot be accurately gauged by this means, the method is not generally in favour amongst the offices, and is never adopted in the case of large manufacturing risks.

previously insurance, as stated, differs from other classes of the business, in that it provides a certain benefit, the contract being the payment of a stated sum at death in return for a fixed premium, usually payable annually. The earliest life I. on record was made in 1583, but the object of the business in its early days was quite different from that of the present time. It is probable, that Is., which then covered only short periods, were effected in the first instance as a protection to creditors. The Life Assurance Com-panies Act of 1870 requires that all new companies transacting life business should deposit a sum of £20,000

sheet and revenue account showing vantage of additional capital. the two principal ones, viz. whole life and endowment. The first-men-tioned provides, for a certain annual payment, a stipulated sum at death only, and the latter, necessarily at a higher rate of premium, for the payment of a stipulated sum at death, or at the expiration of a certain number of years. Most life companies issue two classes of policies viz. profit policies policies. The

implies, shares in the profits of the company a certain sum declared by the company, and based upon their profits being added to the sum in-sured under the policy each year. The without profit policy does not participate, the sum insured remain-ing multiprod until the completion of ing unaltered until the completion of the contract. This policy is consequently issued at a lower rate of premium. In life I. a person may insure for any ~

offices as he p for a person t

life of another unless he has what is known as an insurable interest, that is to say, he must be dependent upon the person whose life he is insuring, or in such a position that he would suffer pecuniary loss at his death. Premiums for this class of business are based upon the probabilities of Tables showing the rate of ity prevailing in various mortality prevailing places have been formed, the one which was most generally used for a time being the 'Carlisle' table, which was derived from observations of Dr. Heysham on the rate of mortality in Carlisle between the years 1779 and 1787. This table has been superseded, however, by others constructed on wider and accurate data. Before a life I. is made, the companies require the proposer to undergo a medical examination which is of a most searching character, and bad health is usually a bar to acceptance, as also is an unsatisfactory family history in the matter of disease. Companies transacting ordinary life business are of two classes, viz. mutual companies and proprietary companies; the former on a mutual basis, share the profits of the business with the policy holders, and the latter belong to the insured person in the event of his shareholders in the The distinction classes is not of very

to policy holders, t paid to the shareholders of a pro- varies, paid to the shareholders of a pro- varies, but is generally twelve prietary company represent only a months. Life I. premiums may be small part of the profits and con- deducted from the amount upon stitute the usual return for the ad- which income-tax is payable.

their financial positions. Many forms distinct branches of the business are of life I. are now effected, but they the 'ordinary' and the 'industrial,' are for the most part variations upon the difference being that the ordinary companies seldom issue policies for less than £100, the premiums being paid yearly, half-yearly, or quarterly, and sent direct to the company or the company's agent by the insured. Industrial companies, on the other hand, transact business amongst the working classes and issue policies for much smaller amounts. the premiums being paid weekly and collected by the companies' representatives or agents. It will be seen that the industrial branch involves much greater expense in working, but this manner of effecting small Is. for £5, £10, or £20 is very popular among the working classes who prefer to pay at a higher rate of premium for the advantage of paying expell modely expensively in advantage. a small weekly sum which is collected by the company. When a life I. policy has been in force for a certain length of time, the insured, should he desire to discontinue the payment of the premiums, is generally entitled to a return proportion of the amount he has paid in to the company. This amount, which is known as the surrender value of the policy, varies amongst the companies, and the length of time the policy has been in force. It is also an easy matter to obtain loans upon a life policy up to the amount of the surrender value. 'Child's endowment' is a popular form of life business. This policy ensures the payment of a certain sum at the coming of age of the child insured, the premiums varying in accordance with the age of the insured person at the time of the issue of the policy. Should the child die before the age at which the policy the should premiums the parent the L was om point for a person who is about to effect a life I. to remember is the necessity of all questions asked by the company being carefully and correctly answered, as it is the pro-posal form and medical report upon which the I. is based, and any misstatement as to age, family history, or the health of the proposer, is sufficient to render the policy void. No life I. is payable to the heirs of an

> of a certain length of time date when the policy was d. This length of time

exercised in looking after the animal by the insured, if he will suffer a proportion of the loss in case of its death. This class of business is not general amongst I. offices, but is confined to one or two companies who make it a speciality. Boiler I. has only recently been taken up by a omy recently been taken up by a few of the companies transacting other classes of business, and until recently was done only by one or two offices who confined themselves wholly to the business. The policy covers damage to the boiler and damage to surrounding property, or injury to persons caused through an explosion. This class of I., however, provides an additional benefit in the shape of a thorough annual examination of the boiler and more frequent internal inspections. The Factory Act of 1901 requires that all users of steam boilers must arrange for an examination at least every fourteen months, and if required the L. comments are acceptance to the business of the steam pany transacting the business will generally arrange for the necessary inspection without the I., of course, at a cheaper rate. It will be seen from inspection without the 1., of course, at a cheaper rate. It will be seen from this that the business is something more than the ordinary I., and is consequently a class apart. Other sections comprise engine I., electrical machinery I., and 'lift' I. Accident business, as it is generally known, as distinct from fire and life, comprises many classes of 'casualty I., chief amongst which is 'personal accident.' At one time this was confined practically to the I. of travellers by train, tically to the I. of travellers by train, and took the form of the payment of as mall sum to cover a single journey. This ensured the payment of a certain amount in the event of accident resulting in the death of the insured

Casually and contingency insurance.—This class of I. business has
seen considerable developments in
the past few years, but before considering Is. coming properly under
the result of accident from any cause
either of these heads, it would be well
during the year. The policy also either of these heads, it would be well during the year. The policy also to pay attention to two classes of includes the payment of a weekly to pay attention to two classes of business which are very extensively allowance during total or partial dispuractised, but must be considered independently. These two classes are 'live stock' and 'boiler' I. In specified discases, or, for a necessarily connection with live stock I., the commonest are those on horses and oxen, and are widely effected by farmers and cattle breeders. Mares are insured against foating risks and other animals against accidents, disease, and fire. Age is a great dother animals against accidents, disease, and fire. Age is a great predicted was 1880, the year of the Workmen's Compensation Act, which actor in the premiums charged, and generally the animal insured cannot for the payment of a weekly allowance during total or partial diseases, and substance during total or partial diseases, and contained in the payment of a weekly allowance during total or partial diseases, and substance during total or partial diseases, or, for a necessarily higher premium, disablement from any form of sickness. The date which accident business commenced the development which has practice was 1880, the year of the workmen's Compensation Act, which accident business commenced the development which has practice was 1880, the year of the readered the employer liable in a generally the animal insured cannot for the premium character was 1880, the year of the readered the employer liable in a far greater measure than had present of the readered the employer liable in a far greater measure than had present of their employment. In this year certain offices were formed to transact employers' liability business together with other casualty I. The Work-men's Compensation Act of 1906, which brought under the scope of the Act every employer of labour, still further increased the demand for this class of I. and several new offices were formed, whilst in addition the old fire companies extended their operations to the accident field. The principal forms of casualty and contingency business comprise personal accident, workmen's compensation, motor car, burglary, and plate glass. Personal accident, which has already been described, is a perhas already been described, is a perfectly simple contract to indemnify an insured person against loss, the result of accident or disease, and it may be mentioned here that a small proportion of this business is transacted on industrial lines, by the payment of a small sum collected each week Workman's commendation. Workmen's compensation is an I. effected by the employer of labour to cover himself against loss accident to his workpeople occurring during the course of their employment, and for which he is liable under the two Acts above mentioned and at common law. The I. is based upon the total wages paid by the employer, and a certain rate per cent. according to the light or hazardous nature of the work done, is charged upon such total wages. In is charged upon such total wages. In return the I. company takes over the whole of the liability, including any legal expenses which may be necessarily incurred. This business has been found by the companies to be a very difficult one to write, and in many instances heavy losses have heen experienced. Since the Act of been experienced. Since the Act of 1906 rates have steadily risen, and during that journey. The present 1906 rates have steadily risen, and form of accident policy takes much the bulk of opinion amongst the the same form, with the exception companies at the present time, is

that even yet great revision will have through the introduction of casualty to be made before this class of I. is I. within comparatively recent years, placed upon a fixed and profitable basis. 'Motor car' I. has been practised to any extent only during the last ten years, but with the growth of the industry it has already assumed considerable proportions, and it estimated that the premiums derived from the class by all the offices at the present time do not fall far short of £1,000,000. The policy usually covers the four risks, fire, burglary, damage by accident, and claims by the public. 'Burglary' I. in some respects bears a resemblance to fire I. in that it is effected on similar Each risk is rated on its own merits, and the rate depends entirely upon the nature of the goods to be insured and where the same are stored. It is obvious that in the case of valuable portable goods the rate of premium charged is considerably higher than that for more bulky and less valuable articles. In order and less vinable arricles. In order that an adequate premium should be obtained, it is generally required by the insuring office that the property to be covered against burglary should be insured for the same amount as is placed upon it for fire I. Burglary policies can, for a higher premium, be sured to include larreny, as distinct issued to include larreny, as distinct. issued to include larceny, as distinct from burglary and housebreaking. 'Plate-glass' I. covers glass in any property against breakage through any cause, and a considerable amount of this business is now transacted in the country, several mutual offices having been formed which confine themselves entirely to the class. 'Fidelity guarantee' enables an employer to insure against loss through the dishonesty of his employees. This has proved a very popular form of I., and it is now a common practice on the part of employers to require fidelity guarantee bonds from any of their servants holding a position of trust. From these common forms of casualty I. there have been evolved many others, not perhaps so widely known, but still largely prac-The tised and of great convenience. owner of vehicles can insure against all damage through accidents to his live stock or vehicles, or against any claims which may be made upon the by the public through the carclessness of his drivers. This last is known as third party 'I., and another form of stored by Napoleon under the title it is public liability, under which class of 'prefect,' Consult G. Hanotaux, it is public liability, under which class of 'prefect,' Consult G. Hanotaux, it is public liability, under which class of 'prefect,' Consult G. Hanotaux, it is public liability, under which class of 'prefect,' Consult G. Hanotaux, it is public through the carclessness of the carclessness of the public through the carclessness of the public through the carclessness of through the carclessness of through the carclessness of the carclessness of through the carclessness of the carclessness of through the carclessness of through the carclessness of the carclessness of through the carclessness of through the carclessness of the carclessn claims which may be made upon him upon their accidents accidents
premises. The provision dealer may Gardening, a highly organised system
insure against claims made upon him adopted by the maratcher in the

the practice of I. has extended to such an extent that, as previously stated, practically every contingency which may arise as the result of accident has been ravided for.

Insurance, National, see NATIONAL

INSURANCE.

Intaglio, strictly speaking, a gem. on one surface of which a design has been hollowed out so that if this side is stamped upon some soft material like wax, the design is impressed and stands out in relief. Is. among the Assyrians and Babylonians were usually cylindrical in shape, like the chalcedony signet of Darius I. of Persia, the workman-ship of which is so justly admired to-day. The Egyptians used to cut their seals on the flat basis of the 'scarabeus' or sacred beetle-a form which is very common also in Greek Is. Gem-cutters at first used serpentine, but as their skill increased they preferred to work in onyx and other harder stones. Is. exist of gods, mythical heroes, historical people, etc., the best dating usually from one of the first three centuries B.C.

Integer, a Latin adjective meaning untouched, 'whole,' used in English as a noun meaning 'a whole number,'

as opposed to a fraction.

Integration, a mathematical process of summation which makes it possible to find the areas enclosed by curves and the lengths of arcs. determine an area, the method is to divide it up into a large number of very thin rectangular strips. From its definition as a summation I. may be proved to be the inverse process to differentiation. The sign for I. is /.

Intellect. see PSYCHOLOGY.

Intendant (Lat. inlendens, from intendere, to watch over), the name given in early French history to an official invested by the king with an important commission, such as the levying of taxes, the administration of financial matters generally, etc., etc. The intendants des provinces date from the last thirty years of the 16th century, and were sent by the king to restore order in the provinces after the civil wars. In 1789 the

inces, 1884. insure against claims made upon that adopted of the maracher in the through ptomaine poisoning, the neighbourhood of Paris. Since 1905, dentist against claims through demanded in the fective work, and so on. Largely subject, and a number of gardens on

similar fines have been fail out, notably at Evesham, Worcestershire, and Mayland, Essex. The wonderful results promised from it have led to disappointment, for it requires an extraordinarily heavy capital outlay per acre, and the annual expenses for labour, manure, rent, water, carriage, etc., are rarely less than £350 per acre. The essential feature of the system is to utilise every yard of space to its utmost capacity in the production of crops a week or two earlier than those raised under conditions. ordinary The soil warmed in the colder months slowly fermenting manure, and frames or cloches (bell glasses) are used to retain the heat and moisture. When necessary, further protection is afforded by straw mats which the maraicher makes himself of rve straw. Watering is a very important opera-tion, daily soaking showers being the rule, but, of course, perfect drainage is essential to avoid waterlogging the Well-equipped gardens have roots. water conveyed by underground pipes to numerous convenient points for easy watering with the hose pipe. In a few years the enormous quantities of stable manure used (as much as 500 tons per acre being a common application) results in a thick layer of rich porous soil which is so valuable that many maratchers stipulate their right, on quitting their tenancy, to carry away this artificial soil with them. An absolute essential to success is the nearness of a good market

Interbourse Securities, stocks and shares of an international character, i.e. those that are bought and sold on the London Stock Exchange, Street, the Paris Bourse, the German Stock Exchange, or any of the various exchanges of the civilised stock The best examples of such world. securities are government stock or shares, like Russian or Turkish bonds (but not British Consols, which are held almost exclusively by people in England), great government loans, American railway bonds, and East Indian securities. The business of Indian securities. negotiating the sale or purchase of I. S. is done

whose mode of in I. S. is to p

stock exchange a certain quantity of securities, and synchronously or practically synchronously to re-sell or re-purchase (as the case may be) on the stock exchange of another country similar stocks or shares to such an amount as from the price (ascertainable by wire) will suffice to cover not only the incidental expenses of interest, commission, etc., moment of death, and Christian but also brokerage. The great benefit burial was denied in any consecrated

similar lines have been laid out, of this arbitrage traffic is the resulting equalisation of and stability in the prices of the great majority of I. S.

Intercalary Days or Months, the term given to months or days inserted in the calendar between others to adjust the reckoning of the year into agree-ment with the solar year. The word 'intercalary' thus means something inserted or placed between, and is used for anything interrupting a series.

Intercommuning, Letters of, an obsolete term of purely historical interest, denoting letters or writs once issued by the government through the Privy Council forbidding all intercommuning or intercourse with persons who had refused to appear before the Privy Council in

answer to a citation.

Interdict. Like the I. in Roman or civil law, and the injunction (q.v.) of English law, the I. in Scots law is a decree or order of the court to re-strain any act or proceedings alleged to constitute an infringement or threatened infringement of another's rights. Like injunctions, Is. are either interim or final. An I. may be granted either by the Court of Session, the sheriff courts, or the inferior or burgh courts. The procedure is by presenta-tion to the Lord Ordinary of a note praying for suspension and I., to which note must be annexed a statement of the facts of the case. prima facie case is proved, the Lord Ordinary will immediately grant an interim I., and order the respondent to file answers to the note, unless the latter has lodged a caveat, when he will not grant such I. until the respondent has been given an oppor-On the retunity of being heard. spondent being heard the Lord Ordinary may refuse or grant an interim I., and may make it condirice and any make it conditionally on the complainer finding caution (security) to indemnify the respondent if at the trial he fails to make out his case. The note of supension and I. having been passed, the case goes to trial, when a final or represent I may be greated. perpetual I. may be granted or re-fused. The procedure in the inferior courts is by way of summary petition and not by note of suspension and I. In the Sheriff Court there is no application for suspension, but only for an I. For illustrations of the matters in which an I. may be obtained see under INJUNCTION.

Interdict, an ecclesiastical censure or sentence which prohibited the divine services, either to particular persons or particular places, or both. Private baptism was allowed during the time of the I., but the Holy Eucharist was not, except at the moment of death, and Christian

usury laws to

attaches too

place except it were done without categorically affirming divine offices. These Is., though frequently exercised in the middle ages upon whole villages, towns, provinces, kingdoms, have been and even abolished so far as England is concerned since the Reformation. The effect of the placing of England under an I. by Pone Innocent III. on March 23, 1208, in retaliation for John's expulsion of those monks who had consented to the appointment of Stephen Langton as primate, is graphically described by Hume. Marriages, it seems, were only celebrated outside the churches, and the dead were buried in ditches and waste places without funeral rites. In the end John bowed to the will of Ecclesiastical Is. are unthe pope. known in the history of the United States. See Burn's Ecclesiastical Law.

Interest, an allowance made for the use of borrowed money or capital. The ratio which the I. bears to the loan or principal per annum is the rate per cent. I. is payable periodically, usually half-yearly in commercial transactions, but frequently monthly in the case of loans by registered moneylenders or by persons who ought to be so registered. I. is either simple or compound: the former being payable on the principal alone, the latter on the amount of the principal and interest as and when it falls due. The exaction of I. was prohibited in England as early as 1197, and the prohibition rested, as elsewhere, upon religious grounds. Probably no one at the present day, now that the views of Bentham and Mill have sunk deep in the national mind, would venture to reprobate I. upon any principles so bigoted as those which obtained in the days of usury laws, and which were nothing less than an application to a Christian country of doctrines derived from the Jewish laws, although, paradoxically enough, the hatred of the Jews at the time of their in 1189 and expulsion in

due to the fact that mos . . money was made by moneylending, a trade in which they figure as largely at the present day, though they now habitually carry on busi-ness under fine old English names. The usury laws fixed a maximum rate of I., varying at different times from 10 to 5 per cent., long after every one had been convinced that the most entire freedom in commercial matters

that prodigals and projectors could require to borrow money at more than the market rate of I. Bentham was the first writer who openly and systematically condemned the usury laws, and since he wrote no legislature has ventured to do more than 'reopen an unconscionable bargain, and in other ways to regulate the status of incidence on form-Bentham.

that source. much importance to Aristotle's condemnation of usury assumption rested ested on the assumption that money is in its nature barren, and that I. was the productive addition to an unproductive object, which view became traditional and is quoted in Bastiat's works as a popular fallacy among socialists. It is almost superfluous to say that to repudiate I. on advances is in effect to prohibit profit altogether, and effectually to stop all exchange by removing its motive. Bentlam's other reasons against the usury laws are that it is a work of supererogation in the legislator to prevent, or attempt to prevent, prodigality; but that the restraints under discussion did not even so operate, for a spendthrift, having no security to offer, is no more likely to get money at a high than a low rate of interest; and that the usury laws did not protect indigence. because though they might prevent a poor man from borrowing at a high rate, they contained no provisions for compelling the rich to lend him at a An elaborate refutation lower rate.

of the dogma that a free access to the money market tends to encourage projectors is also one of the most trenchantly successful criticisms in the Defence of Usury, based as it is

upon what now seems so obvious.

that even if the usury laws did throw

obstacles in the way of the rash and ucoloes cohomor, they equally dis-

3 triumphs of invention. Mill points out that necessitous people must perforce borrow, and in evading the law will pay far more in the end for pecuniary accommodation than could have been the case if the laws had not existed. Mill also regards it as a fundamental error to suppose that the rate of I. is really made lower by law than it would be by the operation of the entire freedom in commercial matters was both the right of the private ordinary law of supply and demand. individual and the benefit of the Probably most of these criticisms community. This anachronism was partly to be accounted for by Adam Smith's approval of those laws, that classic economist, although by no the rate of I, left to the discretion of means in favour of the usury laws, lenders and borrowers; but the courts

prevented

of equity may interfere to prevent ance will occur when trough meets fraud and overreaching, and, of trough, or crest meets crest. And course, loans to infants are invalid were the waves set up by the drop-(see CONTRACT, INFANT). Under the ping of each stone equal in length. Moneylenders Act, 1900, the courts may reopen moneylending transactions of a harsh and unconscionable nature 'and reduce the rate of I. That the Court of Chancery and the magistrates constantly űse their powers under this Act modifies the occasionally one-sided nature of the arguments of Bentham and Mill, both of whom seemed to lose sight of the fact that the natural law of supply and demand can hardly be invoked to support a contract by which a man has borrowed more money at an extortionate rate of I. in the fatal belief that he can thereby repay an earlier and equally extortionate loan. Even if to devote one's capital to such a purpose can be said to be natural, it is neither a moral use of capital nor a user for such highly productive purposes as can or ought to be found elsewhere.

It is an economic commonplace that the rate of I. is the same in all trades in the same country and at the same time—a law which rests for its validity on the climination from profits, of compensation for risk, of dishonourable reputation and everything but pure 1. on capital. But the risk in some occupations being greater, and some trades requiring more superintendence than others, there must always be differences in the rate of L. or profits in different trades rate of L. or profits in different trades or businesses in which the rate is higher than the bank rate—the criterion of the average rate—some economists contradistinguish such higher rate by the name false L. It is an accepted position in economics that save and population increases. that as wealth and population increase the rate of I. declines, because, among other causes, wealthy and populous communities afford less and less scope for any given quantity of labour and capital, a tendency which is the root principle of the Ricardian theory of rent; and again the increasing export of capital tends to produce a uniform rate for all countries. See Bentham, Defence of Usury; Böhm-Bawerk, Capital and Interest.

Interference, a term which, in physical science, indicates a phenomenon depending upon the action at one place of two sets of waves or vibrations. A familiar example, or viorations. A familiar example, which can be used to illustrate this, is obtained by dropping two stones into a still pond at the same time. Circular ripples will be set up from each stone, and will eventually meet, and will eventually meet. causing disturbance. It is almost fering so as to intensity each other, axiomatic that the greatest disturb- It is in this manner that the coloured

then when crest met trough, or vice versa, the wave motion would be entirely annihilated. This in brief, and very simply, explains the phenomenon of I., and this shows itself wherever we have wave motion. can be seen, therefore, that it becomes a fundamental principle, in the sciences of light, sound, and elec-tricity in particular. In these cases, however, the waves are usually too small for I. to be detected or observed by the senses, unless there is a con-tinual succession of the two waves, reproducing the phenomenon at the same place for a long while. Thus in light it is necessary, in order to study I. effects, to obtain the two sources from the same ray. For the great complexity of light waves, and the fact that the waves act in all directions at right angles to the direction in which they are propagated, are conditions which prevent I, effects, which are visible to the naked eye, being obtained from two trains of equal obtained from two trains of equal waves, vibrating in mutually perpendicular planes. A simple experiment demonstrating I, in light is, however, that known as Grimaldi's, as modified by Young. A simple ray of light, which we shall regard as homogeneous, is introduced into a derivated chamber through two darkened chamber, through small apertures which are close These two divergent rays together. will interfere, with the result that on the screen opposite will be shown a series of bright bands separated by dark ones. The central one, which is the brightest, is placed so that all points on it are equidistant from each aperture, and is formed by the meeting of crest with crest and trough with trough. The next bright band on either side is formed by the meeting of crest with crest and trough with trough, but in this case because it is the locus of all points whose distances from the two wave length of

each dark space is, of course, the locus of all points where crest meets with trough and trough with crest. Theoretically the series of I. bands is composed of an indefinite number, but the fading away in brightness of these bands in practice is explained by the great difficulty of obtaining pure homogeneous light. Thus with sunlight it is impossible to obtain dark spaces, because when some of the rays in it, say, for example, the red, are annihilating each other, then some others, e.g. the blue, are inter-fering so as to intensity each other.

be explained, while Newton's Rings, diffraction gratings, the coloured rings seen round the sun and moon, are all examples of I. Neap and spring tides, beats in sound, and shadows of both sound and light are also caused in the same manner. See SOUND, NEWTON—Newton's Rings, SOAP BUBBLES, SPECTRUM, DIFFRAC-TION, POLARISATION OF LIGHT, and ELECTRICITY—Electro-magnetic Waves

and Maxwell's Theory. Interim (Lat., in the meantime), the name given during the Reformation to certain attempts made in Germany to draw up a formula which would serve as a basis of agreement between Catholics and Protestants until such time as a general council could be held. Three distinct attempts were made to bring this about, resulting in the 'Ratisbon Interim' in 1541; the 'Augsburg Interim' in 1548. Not one of these proved satisfactor. See Bentel Urber defactory. See Bentel, Ueber der Ursprung des Augsburger Interims.

Interjections (Lat. inter, between; jaccre, to throw), one of the parts of speech—natural ejaculations, expressive of some feeling or emotion; properly the movements of the vocal organs, accompanied by voice, such as 'oh,' 'ah,' 'ch '; but in a general sense applied to vocatives and imperatives when employed as isolated exclamations, such as, 'heavens,' goodness gracious,' by Jove,'

stop, 'go on, 'etc., etc. Interlaken ('between the lakes'), in canton of Bern, Switzerland, a health resort much frequented by visitors, with an elevation of about 1863 ft. It is 26 m. S.E. of Bern, between the lakes Thun and Brienz, on the R. Aar, and is one of the most charmingly situated spots in Switzerland. It has magnificent mountain scenery, the Höheweg commanding a fine view of the Jungfrau. Pop. 2600. Interlineations, in law, denote addi-

tions to or alterations of a written instrument made either before or after the execution of the instrument. As a rule I. made after execution having the effect of altering or amending the instrument in material particular will prevent the enforcement of any rights created under the instrument. It is otherwise with I. made before execution pro-vided they were made with the convided they were made with the con-sent of parties whose rights are the different steps in an action, or affected by the instrument. The rule for filing answers to interrogatories affected by the instrument. The rule for fining answers to interrogatories of evidence is that I, on the face of a \((q.v.)\); to pay money into court deed are, in the absence of evidence instead of defending an action; for to the contrary, presumed to have discovery and inspection of docubeen made prior to execution; but in ments, or admission of facts by a will I, are presumed to have been interrogatories; for leave to serve made after the testator signed 1 his an interpleader \((q.v.)\) summons; for

effects produced in soap bubbles can will. I. which do not affect the rights of parties who are under any liability created by the instrument are immaterial. I. made in a will should always be signed and attested, as in the case of the body of the will; and a similar precaution should be ob-served in regard to those made in a deed or other instrument.

Interlocutor, in Scots law, strictly a judgment or judicial order pro-nounced in the course of a suit, which does not finally determine the issue (cf. INTERLOCUTORY PROCEEDINGS). But in practice it appears to be applied to all judgments or orders of the court, whether they finally dispose of

the case or not. Interlocutory Proceedings. Applications or motions before a judge, master, or district registrar chambers, for some preliminary order, decision, or judgment in an action, are called I. P. An order made in I. P. does not finally dispose of the case, but, as a rule, decides some matter incidental to the proper conduct of an action. Interim injunctions (see under INJUNCTIONS), however, although not final, have the effect of final judgments if on the trial it is established that a proper case has been made out for an injunction. Application in chambers must be made by summons, or by notice of application under the summons for directions (or summons which asks the master to give directions as to the future conduct of proceedings in such matters as discovery of documents, pleadings, etc.), unless made ex parte, when no such formality is required. Applications to the court are made by motion, and, as a rule, at least two clear days notice of motion must be given, unless the court gives leave to the contrary. As a rule every Friday in term time is allocated for motions in the Chancery Division, on which day numerous motions may generally be heard for the appointment of receivers, and for interim injunctions to restrain infringements of patents, or for any other matter. Other very usual applications in the courts are to expedite a trial, to strike a case out of the list for default of pleadings on the other side, and indeed in any matter of urgency, public or private. Very common applications in I. P. in the King's Bench Division are those

between, Interlude (Lat. inter. ludus, play), a short piece or musical phrase performed between the acts of a play or between the verses of a hymn. In drama, a short perform-ance given between the parts of a play or in the intervals of a banquet or court pageant. The characters were as a rule merely personified qualities such as Mercy and Youth. The characters This kind of stage production, as well necine struggle between them and as moralities and mysteries, succeeded the older miracle plays, and in the early part of the 16th century, with the comedies of Naall and the tragedies of Sackville and Norton, kept the dramatic field until the appearance of the new school created by the Elizabethan dramatists. John Heywood (1497-1580) wrote Is, and introduced a notable change into his characters by making them represent types and classes of men, such as pedlars and friars, instead of qualities. His principal Is. were: Johan, Tyle his Wife, and Sir John the Preeste; A Mery Play betwene the Pardonere and the Frere, the Curate and Neighbour Pratte; and The Play called four P.'s, a new and very Mery Interlude of a Palmer, a Pardoner, a Poticary, and a

Intermarriage, see Consanguinity

and MARRIAGE.

Interment, see BURIAL, CUSTOMS

AND LAWS OF.

Intermittent Fever, see MALARIA. International, The. Although the International, as the International Working-men's Association was more generally and briefly called, is no longer in existence as a formal organisation, the ideals for which it stood and to a certain extent the methods by which it sought to realise them, are as widespread to-day as they have ever been. This is not to be wondered at when it is remembered that its virtual founder was Karl Marx, the father of modern, or 'scientific,' Socialism; that Socialism has always had an international character: and that the Socialist parties in all countries are, numerically at least, stronger than ever before. The tional may be

In September eting was held

in London at which it was decided to form an international association of working men. This decision crystalised a growing fraternal sentiment rule can be a law positive unless statistical that had been fostered by a visit of by a given sovereign to his subjects

security for costs against a party to French workmen to the International an action; to change a place of trial; Exhibition in London in 1862, and and for further and better particulars of statements of statements of the trial.

curiously enough (in view of subsequent events) the organisation was at first countenanced, if not supported, by the Emperor Napoleon Marx peal from a motion order or other dominated the organisation from the decision in I. P. first, and drew up its statutes, which were adopted by the first congress held in Geneva in 1866. the International became more and more Socialist in outlook, and when in 1869 Michael Bakunin, the Russian an-archist, entered it with his followers, that body became still more revolu-

> From this struggle the Socialists. Marx and his followers emerged victorious, and the conference at the Hague (1872) expelled the anarchist From this expulsion the element. never recovered, and association although it held one more conference. that at Geneva (1873), it may be said to have ceas Bakunin's

little while

Latin countries. 10 an intense and purposes the period between 1873 and 1880 may be considered as having no organisation giving expression to international working-class opinion. In the latter year, however, an inter-national Socialist congress met in Paris to celebrate the centenary of the Great Revolution, and since then congresses, at which Socialists from all over the world have been represented, have been held triennially in different countries.

International Law, a comprehensive term (coined by Bentham) denoting the sum of those rules of conduct which obtain among modern civilised nations, and which regulate their mutual relations and intercourse. The 'persons' or 'parties' known to I. L. are states, and normally such soveries independent states such sovereign independent states as are recognised members of the family of nations (on the nature of the artificial conception of state, see GOVERNMENT, STATE), or that aggregate of states which, as the result of their historical antecedents, have inherited a common civilisation. and are at a similar level of moral and political opinion' (Prof. Holland). The question how far this international or rather inter-state code of morality may appropriately be de-signated 'law' has formed the subject of an extraordinarily prolific literature. One school of jurists fol-low the narrow but logical Austinian analysis of law, maintaining that no rule can be a law positive unless set the Romans (see EQUITY), is no more than a body of principles, adherence to which on the part of individual states or nations is sanctioned by the fear of war. But another school of publicists and jurists, while not for the most part venturing directly to controvert the Austinian analysis, assert that laws are not necessarily sanctioned by force so much as by the want of an actual authority

observance will not depriv legal character rules habitually and consciention without any thought of fea

by some controlling authority. The mere fact, however, that no modern civilised state would openly declare The its unwillingness to be bound by such rules as have now received the seal of international approval at the Hague conferences, and that many have submitted to arbitration with at least a show of good grace, does not alter the fact that treaties or conventions are frequently violated and immunity gained only at the price of fear of superior armaments. The true view would seem to be that a positive or municipal law and a rule of international morality have points of re-semblance, but differ essentially in point of promulgation and enforcement. There is a similarity from the fact that conformity to each does to a great extent rest upon consent freely given from the recognition of an inherent and sound ethical standard based upon Christianity in the rules themselves. The jurisprudential aspect of I. L. is neatly summarised by Pr ishing point lacks any tions.

and above the disputant parties themselves, and since, in proportion as it tends to become assimilated to true law by the aggregation of states into a larger society, it ceases to be itself, and is transmuted into the public law of a federal government.' The whole question seems to be purely ac view " for the different subjects of nations are not the more alich to international conventions and usages merely because they are labelled 'law.' A growing consciousness of the evils of war, not only on the emotional side of the question, but from the merely economic standpoint (see Mr. Norman Angell's The Great Illusion) is a far more efficacious

and sanctioned by force, and that Agencies or sources of international international 'law,' which must not law.—These, according to Wheaton, be confused with the jus gentium of are: (1) Text writers of authority on the approved usage of nations, such as Ayala, Grotius, Puffendorf, Byn-kershoek, and Vattel; (2) treaties of peace, alliance, and commerce; (3) ordinances of particular states prescribing rules for the conduct of their commissioned cruisers and prize tribunals: (4) the adjudication of international tribunals, such as boards of arbitration and courts of prize; play of public opinion, and that the (5) written opinions of official jurists

All these sources are invoked by Wheaton as guiding the modern publicist and statesman in the search for a rule so generally recognised as to amount to a rule of I. L. Paradoxically enough, though there was until recently next to no written I. L., there has for some considerable time existed an encyclopædic bibliography of opinious on the principles underlying its now generally recognised usages. But too much importance must not be attached to the opinions of jurists, because, while some rely upon practice and precedent, or the decisions of a court and the act of a government, others prefer the theoretical speculations of eminent predecessors. The latter, however, are in a minority in these days of precedents, though it was otherwise in the days when the works of Grotius, Ayala, and a few others were almost the sole source of information. Treatics are the most important source, if we include under that term every form of convention, contract, or declara-tion made between or ratified by dif-ferent states. The Declaration of ferent states. The Declaration of Paris, 1856, the Geneva conventions of 1861 and 1906, the conventions drawn up by the representatives of most of the leading nations at the various Hague peace conferences have by their combined effect led to the evolution of a tolerably comprehensive body of express I. L., regulification of the six of war, and locating the end of the six and wounded to act, which on land (the Geneva Convention) or a few of the six and wounded. Convention) or at sea (Hague Convention, 1899). The convention of July 29, 1899, was an especially epoch-making document, for it represented the agreement of no less than twenty-four states to submit certain disputes to a permanent court of arbitration, an innovation which still guarantee of a later and universal further assimilates I. L. to law proper. reprobation of the breach of the in-ternational code than the fear of a national commissions of inquiry on disputes arising from a difference of

opinion on facts, although as to these a government which receives a de provided that their reports should leave entire freedom of action to the parties concerned. Such an inquiry was held in the case of the Dogger Bank outrage on British fishing vessels at the time of the Russo-Japanese war. In the express recognition of arbitration as the most efficacious and equitable means of composing differences, it is to be noted that although most European powers have bound themselves to submit to the arbitration tribunal for a period of five years, there is an express condition, qu'ils ne mettent en cause in les intérêts vitaux, ni l'indépendance ou l'honneur des deux, états con-tractants et qu'ils ne touchent pas aux intérêts des tierces puissances.' But who shall say of a matter of international dispute that it does not honor

way state codif creat

supplemented by the Declaration of London (q.v.), which creates an International Prize Court of Appeal, and further regulates the law of contraband and blockade. A novel feature in regard to the authoritative or binding efficacy of the Declaration of London is the fact that taken by itself it is not like a statute a complete and exclusive statement of law to be interpreted only by the light of its own provisions; because apparently (although it came as a surprise to so eminent an authority as Profesreport, Westlake) the official drafted by the committee presided over by the French plenipotentiary, of M. Renault by way of commentary, must, in accordance with the principles and practice of continental jurisprudence, be read with the declaration itself.

The subjects and general principles international law.-The subjects or persons, as already said, are normally sovereign and independent states. Sovereignty is a fact depending on nothing else than the objective existence of all the ordinary phenomena of political independence; though such external sovereignty may require recognition by other states to enable the new sovereign state to enter the society of nations. The characteristics or elements of international personality are concisely summarised by Mr. F. E. Smith, in his work on International Law (Dent & Sons), thus: 'Every society claim-

last-mentioned bodies it was further facto allegiance from its subjects; (2) it must be a sovereign independent state; (3) it must exhibit reasonable promise of durability; (4) it must possess definite territories; and (5) it must be recognised as a member of the family of nations.' In the theory of I. L. a state under suzerainty is no different from an individual state in a federal system (Smith), its subjects being in effect those of the suzerain state. A protectorate occupies an anomalous position midway between an independent sovereign state and a state under suzerainty, for it remains independent and owes no allegiance to its protector, although a part of its rights have been surrendered either temporarily or permanently. But it is clear that a protectorate state, since, ex hypothesi, it has transferred its executive and foreign relations to relate to vital interests, national another state, is hardly one the claim of which to the world's recognition of its independence is 'likely to impress practical statesmen' (Mr. Smith). In some respects it may even be conceded that a chartered company (q.v.) is an international person. In the heyday of the East India Company, when that remarkable body employed troops and governed a great part of India in its absolute discretion, it would have been the merest pedantry to exclude it from the category of international persons. But in the light of modern state control of these companies, it would be truer, in this content, to follow Mr. Smith's opinion to the effect that all that other nations need know is that a political act of a chartered company is prima facie the act of the country to which it belongs (or from which it holds its delegated sovereign powers), and that redress may be sought from that country for wrongs done by the company.

Just as one individual subject is bound to respect the rights of another to do with his own property just as he will, subject only to the limitation that he does not thereby injure any one else, so in the domain of I. L. the mutual recognition of, or respect for, national independence and integrity is really the ultimate basis of the law governing states in their normal re-lations. Hence I. L. recognises the right of any state to place itself under any form of government it may choose, and to regulate its domestic concerns as it will. The massacre of the Servian royal family in June 1903, the dethronement of King Manuel of Portugal and the substitution of a republican form of governing admission to the law of nations ment, the separation of Norway and must satisfy the following require—Sweden, however significant as hisments: (1) It must be represented by torical facts, were theoretically no

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why

concern of other nations; though the first-named event for long caused many other nations to refuse to re-

to the Russian government before steps were taken to commit the Britishgovernment to definite friendly relations with that country; and why a ceremonial visit was being paid by the British fleet when a boy of fourteen and a girl of eighteen had just been publicly executed at Riga; and Mr. Keir Hardie also referred to the anti-Semitic outrages. But these democratic objections to the tradition. with not from Sir ' date officially expressed the well-known principle of I. L. In this connection it is at least curious to recall the differential treatment accorded to the equally sovereign Ottoman Porte in regard to the Armenian massacres. If one nation may massacre its own

main subject to the constant humiliation of capitulations (q.v.)? The explanation is simple. In some cases the sanction of fear rather than that of public opinion remains as strong as ever.

Again, a state may pursue any commercial or fiscal policy and maintain what armaments it may choose without

of I. L assert

persor of their jurisdiction, whether such persons and things are foreign or not. But in a case of conflict of legal principles in regard to the rights of private individuals, the dictates of international comity may be said to have occasioned the habitual application of the appropriate law to each case (see COMITY). This application of foreign lawis sometimes called Private International Law; but strictly the word 'international' is inapplicable, and the rules and principles relative to the subject will not therefore be further referred to in this article.

It is also an underlying principle of principle before the award of 1907 I. L. that whether an independent nation be strong or weak does not acquiesce in the preparation and sale affect its right to equality of treat-

ment and respect in all matters directly or indirectly concerning its interests. Included in the territory of a state are the so-called territorial extending for 3 m. measuring from low-water mark. follows also from the general freedom of the high seas that men-of-war and other public vessels on the high seas are, in Professor Oppenheim's words, 'essentially and in every point treated as though they were floating parts of their home state.' Included in such fictional parts of foreign territory are the official residences of diplomatic envoys and ambassadors. Professor Oppenheim, on this question of what comprises state territory, notes that though there is no recognised principle of free navigation on national rivers, a movement for the recognition of free navigation on international rivers set in at the beginning of the 19th century and developed in the case of a number of great European rivers in conventions between the various riparian stipulations

at Berlin in d the Niger

national commission called the International Congo Commission to regulate navigation on those rivers.

The detail of I. L. relates to belligerency, or the rights and duties of states in time of war, neutrality, and the process of the pacific settlement of international disputes by

arbitration. In regard to belligerency I. L. lays down rules for the commencement of hostilities, and for determining enemy character whether of goods, ships, or persons (see ENEMY); it prescribes the permissible modes of warfare, and provides for the proper treatment of prisoners of war and wounded belligerents. Further, it lays down restrictions on the conversion of merchant into war vessels on the high seas, interprets the effect of conquest upon liabilities, and the general operation of treaties, and regularises the practice of pacific blockade. The rights and duties of neutral powers find expression in the rules as to contraband (see Declara-TION OF LONDON), the supply of arms by neurtal states, the right of asylum, passage through neutral territory. blockade, and the visit and search of neutral merchantmen. As to what acts on the parts of its subjects a neutral government is bound to restrain and what acts its subjects may do at their peril, the Alabama case shows that there was no clear principle before the award of 1907 as to whether a government might acquiesce in the preparation and sale

principle upon which a government (to abide the event of the trial, if he incurs no legal responsibility for the supply of guns being very close. Now neutral governments must use due diligence to prevent the arming or equipment of such vessels within their jurisdiction.

Bibliography. - Wheaton's International Law (4th ed.); Hall, Interna-tional Law (6th ed.); F. E. Smith's International Law (4th ed., J. M. Dent & Sons, Ltd.); Oppenheim's International Law, 1905; Smith and Sibley's International Law, 1905; Sinta and Sibley's International Law, 1907; Sir Henry Maine, International Law, 1888; James Kent, Commentary on International Law; F. de Martens, Le Droit international actuel des peuples Commentaries

Renault, In-'u droit inter-9: A. Rivier. s gens (Paris),

1896.

International Mercantile Marine Company, a company formed in 1902, known also as the Atlantic Shipping Trust (q.v.) and The Morgan Combine. It inc

bine. It in Star lines, Leyland lin-Line, and (American).

of about 126 steamers (1,181,26) tons). Offices are at James Street. Liverpool, and in London at Leadenhall Street, E.C., and Cockspur Street,

S.W. Interpleader. When a person finds himself in the position of being sued for the recovery of money or goods in his possession in which he claims no interest, but to which some third person besides the plaintiff lays a claim, he is not compelled either to incur the cost of defending the plaintiff's action, or run the risk of an action at the instance of the other claimant by handing over the pro-perty to the plaintiff. His proper course is to take out an L. summons under Order LVII, (rules of Supreme Court), on the hearing of which the against him is summarily stopped and the two claimants are made parties to an I. issue. This is called a stakeholder's I., and is to be distinguished from a sheriff's I. The latter case arises when a third person claims goods which have been seized by a sheriff under an execution (q.v.) for a judgment debt. The sherif's course is to serve an I. summons on both the claimant and the executive creditor, and in the case coming on before the master, an issue will be directed for trial, unless the amount references to in dispute is under £50, when he will in Acts of an himself summarily dispose of it, to refer to t. Where the master directs an issue, the being in the absence of an apparent claimant must pay money into court contrary intention; and also that

declines the master will make an order for sale (if goods) or payment (if money) to satisfy the judgment creditor's claim. See Cababé, Intervleader.

Interpolation, the mathematical process of filling in values intermediate between those given in a set of tables, e.g. the finding of log 2765473 from logarithm tables which give only log 2765400 and log 2765500. In most simple cases like the example given, it is sufficiently accurate to use the method known as the method of proportional parts. Thus the tables give:

log 2765400 = 6.4417580 log 2765500 = 6.4417737

.. a difference of 100 is equivalent to ·0000157

.. a difference of 1 is equivalent to .0000157

100 .. a difference of 73 is equivalent to 000000157 = 73= .0000115 to seven places

... log 2765473=6.4417695

A very accurate result may sometimes be obtained from a graph by plotting out the series of tabulated values and then joining up the points by means of a curve as smooth and continuous as possible. This method is especially suitable in many physical examples where the resulting graph takes the form of a wellknown curve, and also gives as good a result as we can hope to get in such cases as the estimation of the population of a country at some date inter-mediate between two censuses (see GRAPHICAL METHODS OF REPRE-SENTATION). As a rule, so long as the successive differences vary very slowly, a simple method is good enough, but where the differences after rapidly (as for example the differences for 11 as the tangent of an angle approaching 90°) another method must be resorted to which involves more advanced mathematical work from the theory of finite differences.

Interpretation Act. An Act passed in 1889 repealing and re-enacting Brougham's Act of 1850 for shorten-ing the language used in Acts of parliament. As to Acts passed after 1850 the Interpretation Act provides that words denoting the masculine shall include the feminine, the singular the

where any Act repeals and re-enacts. with or without modifications, any provisions of a former Act, references in any other Act to the repealed pro-visions shall be construed as refer-

ences to the re-enacted provisions.
Interrex (Lat. inter, between, and rex, king), an official of ancient Rome, appointed by the senators on the death of a king to hold the supreme authority in the state during an interregnum, i.e. a vacancy of the throne, or suspension of the usual government. In ancient Rome an I. was appointed to hold office between the death of a king and the election of his successor. He held power for five days, and had to belong to the pairician party. The first I. appointed named a successor, and sometimes the nomination continued to a third and even a fourth. Thus the fiction of personal selection was kept up, held to be essential to the proper transference of the religious

power of king or consul.

Interrogatories. In interlocutory proceedings in an action at law, either plaintiff or defendant may apply, as soon as the latter has delivered his statement of defence, to a master in chambers for leave to administer I. to his opponent. Before being allowed to deliver I., a sum proportioned to the length of the I., but in no case under £5, must be paid into the security for costs account by the party delivering the I. The other party must answer the I. within ten days or such other period as may be allowed. The I. before delivery are submitted to the master, who may disallow all or any in his discretion. Only such I. will be permitted as appear to the master necessary for or for sav-

is to obtain

party with a view to proving one's own case and to ascertain as far as possible the case of the other party. But it is not, at least in theory, permitted to a litigant to institute a 'roving com-mission' of inquiry so as to work up a case out of his adversary's forced admissions or to defend a just cause by a similar process. I. must relate strictly to the matters or facts in issuo (see under EVIDENCE), but, unlike pleadings, are not confined to the material facts upon which the parties intend to rely, for they are generally directed to the evidence. The party interrogating is entitled to ask 'anything that can be fairly said to be material to enable him either to maintain his own case or to destroy the case of his adversary.' But he cannot ask the names of his opponent's witnesses, nor, indeed, is he entitled to find out on what evidence his opponent pro- signification.

poses to rely to prove his side of the case. In legal slang this is expressed in the prohibition of 'fishing' I. There are several forms of objecting to answer I., but generally objections must be by affidavit. The customary objections are on the ground of irrelevancy, that one's own evidence is being asked for, that the I. are fishing, that the matter is privileged. and that the contents of a written document are asked.

Interval, in music, is the name for the distance in pitch between two or more musical sounds. The smallest Is, used in practical music are semitones which, in a properly tempered instrument, have always the same distance in pitch between them, and it is the number of semitones contained in the I. between two notes of different pitch which determines the 'size' of the I. Is. are primarily divided into two classes, consonant and dissonant, but the lines of demarcation between the two have been very differently fixed. Greeks considered the unison, octave, fifth, and fourth more perfect than the other Is.; in mediæval treatises Is. were divided into perfect, medium, and imperfect, the unison belonging to the first class, the fourth and fifth to the second, and the third and sixth to the last; the division into perfect and imperfect is followed by many writers at the present day. The simplest classification is one used in Germany and is this: Is, are reckoned upwards inclusively and by the number of 'names' of notes which they contain; they are in their normal state when reckoned from the first note of the major scale considered. for the time, as the 'tonic.' Normal Is are 'major.' Is one semitone 'less' than 'major' are 'minor,' and one semitone 'more' than 'major' are 'augmented,' while Is one semitone less than 'minor' are 'diminished.' See Inversion.

Intestacy denotes the decease of a person without having made a will, or where, though a will has been made, it has been either revoked or annulled for irregularity. A person so dying is said to have died intestate, and such real property as he may have died possessed of descends ultimately to his heir-at-law and his personalty to the next of kin under the statutes of distribution. See DISTRIBUTION, STATUTES OF, and INHERITANCE.

Intestina, or Entozoa, the name formerly given to an order composed of worms which live in the intestines of other animals; it included nearly all Metazoa, as distinguished from Protozoa, but has now no technical

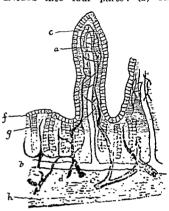
Intestines. tion of the alimentary canal between the stomach and the anus (q.v.).

The small intestine is a slightly narrowing tube from 22 to 25 ft. long, and commences at the pylorus end of the stomach and after many convolutions terminates in the large I. occupies the lower and middle part of the abdomen (q.v.) and is surrounded by the large I. The small I. is arbitrarily divided into three portions, viz. the duodenum, jejunum, and tleum. The duodenum, about 10 in. long and from 1½ to 2 in. in diameter, is the shortest and widest part of the small I. It resembles a large C shaped curve, its concavity embracing the head of the pancreas. It is only partly covered by the peri-toneum. The middle descending por-tion of the duodenum receives the common bile duct and pancreatic duct.
The jejunum, about 8 to 9 ft. in
length and 1½ in. wide, occupies the
upper and left part of the abdomen below the subcostal plane. It joins the duodenal section on the left side of the vertebral column, and is continued into the ileum, which is about 12 to 14 it. in length and 11 in. wide. This portion occupies the lower and right part of the abdomen and is highly convoluted. Both the jejunum and ileum are attached and supported by an extensive fold of the peritoneum (the mesentery). At a point about 3 ft. from the termination of the ileum a small pouch (Mechel's diverticulum) is occasionally found, and is probably connected with the persistence of a part of the

vitelline duct of early foctal life.

Large intestine.—This portion of the alimentary canal is 5 to 6 ft. long and extends from the leum to the anus. It is divided into three parts, viz. the cœcum (with the vermiform appendix), the colon, and the rectum. Its diameter varies from 2½ in. in the cocum to 1½ in. in the lower part of the colon, diminishing gradually throughout its length with the exception of the well-marked dilatation of the rectum referred to later. The cacum is a blind sac occupying the right iliac fossa immediately behind the anterior wall of the abdomen, and the anterior wall of the abdomen, and extending some 2 or 3 in. below the ileo-cæcal junction. Normally this junction contains the *leo-cæcal* or *ileo-cœlic valve, though cases of the absence of this valve have occurred and no inconvenience has been recorded during life. The cæcum is convered by the peritoneum in front

The I. form that pordown into the true pelvis. Its opening mentary canal between into the execum is about 1 in. below and the anus (q.v.). that of the ileum. So far as is known, this appendix is peculiar to man, certain of the higher apes, and to the wombat; but in some animals a peculiar formation of the distal part of the excum may represent a condi-tion of the appendix. Its susceptibility to disease has been dealt with elsewhere (see APPENDIX). At birth the cœoum is a cone and the appendix is its apex; it is bent upon itself to form a L, and this form may persist throughout life. The colon is subdivided into four parts: (a) The



DIAGRAMMATIC VERTICAL SECTION OF THE INTESTINAL MUCOUS MEM-BRANE.

One complete villus is shown-a, lacteal vessel; b, horizontal lacteal which a joins; c, capillary blood vessels in the villus; d, small artery; e, vein; f, epithelium covering the villus; g, tubular gland or crypt of Lieberkühn: h, submuçous layer.

ascending colon, a portion of the canal about 8 in. long and slightly less in diameter than the excum. is situated in the right lumbar region and ascends vertically to the under surface of the liver, near the gall bladder, where it proceeds forward and bends abruptly to the left (the hepatic flexure of the colon). overlaid in front by some of the conand no inconvenience ordered during life. The caccum is covered by the peritoneum in front, below, and at the sides. From its posterior and left surface the vermital part of the colon, and passes across form appendix protrudes and usually arch of the colon, and passes across from the right hypochondrium to the left. At each extremity it is volutions of the ileum, and is bound

middle it curves forward and lies close to the anterior wall of the abdomen. It is invested by the general peritoneum which forms a separate fold for it (the transverse meso-colon). (c) The descending colon is continuous with the previous portion by a sudden bend, the splenic flexure, where is situated a remarkable fold of the peritoneum (costo-colic ligament). It descends vertically for about 6 in. to the left iliac fossa, and is available contact. is usually empty and contracted while the rest of the colon is filled with gas. The peritoneum forms a covering to it only at the front and sides. (d) The sigmoid flexure is the narrowest part of the colon. Treves and T. Jonnesco have pointed out the inapplicability of the term 'sigmoid flexure,' and it is now usual to subdivide this portion into the iliac colon and the pelvic colon. former passes from the crest of the iloum to the inner border of the psoas muscle lying in the left iliac fossa. The latter portion of the colon lies in the true pelvis and forms a loop (Omega loop of Treves), the convexity of which reaches across to the right side of the pelvis, and the distal end turns sharply downward to the rectum. The rectum, the the right side of the pelvis, and the parts of the I., and presents numerous distal end turns sharply downward to the rectum. The rectum, the lowest portion of the large I., extends to the anus. It belies its name in the Lieberkulm and Brunner's glands, the human subject as it has a marked concavity forward corresponding to that of the sacrum and coccyx. It is some 8 in. in length and ends in a dilatation (rectal ampulla) which is in contact with the back of the prostate in the male and of the vagina in the female. The peritoneum covers only a portion of the rectum, being re-flected down and forming a pouch between the bladder and the rectum in the male, or between the uterus and rectum (pouch of Douglas) in the female.

Structure and glands of the intestines.—The I. are composed of an external serous or peritoneal coat and three others: muscular, submucous, and mucous. The muscular coat consists of two layers of fibres, a longitudinal and a thicker inner cir-The progressive contraction of the fibres of the muscular coat produces the peristallic movement by which the contents of the I. are forced onwards. In the large I. the longitudinal fibres, instead of being evenly arranged, are, in the crecum and colon, gathered into three longitudinal bands (tania).

situated deeply towards the back part fibres become evenly arranged, and of the abdominal cavity, but in the the circular layer is here well developed, as it also is in the duodenum. The sub-nucous coat of strong loose areolar tissue is connected more firmly with the mucous coat than with the muscular coat. The nucous coat is thick and vascular and contact is thick and vascular and consists of : (1) An epithelial layer forming the intestinal glands; (2) a layer of retiform tissue which supports the blood vessels and lacteals, and (3) a thin layer of unstriped muscle (muscularis mucosa). In the duodenum and jejunum the mucous membrane is thrown into a series of closely placed transverse pleats (valuulæ conniventes). The largest are about 2½ in. long and ¼ in. wide at the broadest part, and they materially increase the absorbent surface to which the food is exposed. The surface of the small I. is velvety, due to the presence of minute closely-set the presence of minute closely-set protuborances termed villi; Krause estimates a total of 4,000,000 of them, each covered by columnar epithelium and having a complete system of blood vessels and lymbetics. phatics. The mucous membrane of the rectum is thicker, redder, and more vascular than that of other

> collected into large oval patches known as agminated glands or Peyer's patches, the long axes of which, 1 in. to 4 in. long, are arranged length-ways in that part of the tube most distant from the mesentery. Vessels and nerves.—All parts of the

> I, are supplied with a very complete system of blood and lymphatic vessels (lacteals) minutely sub-(lacteals) divided. The nerves of the I. are chiefly derived from the superior mesenteric plexus, and at first they and their subdivisions cling very closely to the larger arterial vessels: finally they reach the I. in very numerous branches to be distributed and redistributed in the muscular and sub-mucous coats.

Intimidation, see THREAT.
Intonation, in music, the opening phrase of any plain-song melody. The term is usually applied to the first two or three notes of a Gregorian contraction of the tende forms a series psalm-tone, generally sung by one of sacculi which help to distinguish or more selected choristers, or by the the large I. from the smoother small officiating priest. Its use is, as a rule, I. In the rectum the longitudinal confined to the first verse of the

ie latter vicious.

psalm or canticle, though occasionally in the Magnificat, Benedictus, and Venite the opening phrase of each successive verse is sung in this way to give a greater solemnity.

Intoning, the custom of rendering prayers in the form of a musical recitative, similar to chanting, the greater part of the prayer being recited on one note. It can, however, be varied tain simpl and sacre scale.

utterance. doubtedly of ancient date, and obtains among the great majority of barbarous nations. as well as in barbarous nations, as well as the Greek, Roman, Anglican, and Lutheran churches.

Intoxication, see Alcohol, Alcoholism, and Drunkenness.

HOLISM, and DRUNKENNESS.

Intra, a tn. of Northern Italy in
the prov. of Novara, situated on the
W. shore of Lake Maggiore, about
25 m. N.W. by W. of Como. There
are ironworks, and manufs. of silk,
cotton, and felt. Pop. 7000.

Intransigeants (literally irrecon-

cilables'), the name given to extreme political parties, for example the revolutionary communists in Spain in 1873-74, the Radical parties opposed to the existing government in France, Italy, and Spain. Intransigentism implies an attitude of uncompromising disagreement with political opponents.

Introduction (It. introducione), a musical term signifying the prelimito a following movement. Strictly speaking, it is the piece of music with which an opera opens, and is preceded by the overture, but many composers make it take a more important place, and introduce it in the place of the overture proper. Gounod does this in most of his works, Mozart in Don Giovanni, and Meyerbeer in Robert le Diable. In a wider sense, the introduction is the prelude to a symphony, rondo, waltz, etc. Beethoven made use of it in several of his symphonies, quartets, and overtures, such as in his Egmont, and in Leonora, Nos. 2 and 3. The majority of Wagner's operas also commence with an introduction, and a short one is often prefaced to the second and third acts as well.

Introit, an anthem sung in the man Catholic Church at the beginning of the Mass, as the priest goes up to the altar, immediately after the Confiteor. It consists of an antiphon, gloria, and part of a psalm, though other passages of Scripture are sometimes used. The introduction of Is. is ascribed to either Celestine (423) or to Gregory the Great (423). Some of the Is, in the wearisome iteration of the claims of

ounds or

of legal I. is that of an adjudger, or creditor, who has obtained an adjudication by process of diligence against his debtor for the payment out of the rents of his debt and interest. Formerly the adjudger obtained the property in the whole estate, although its value might have been far greater than was necessary to pay off the debt. now the creditor, generally speaking, gets only so much of the rents as is gets only so much of the rents as is required for the payment of principal and interest, and is accountable for the residue. The expression victous I. applies to the unlawful taking possession by an heir of his aucestor's movable estate. The consequence of such I. is to render him liable formulation above the consector. liable for all the debts of the ancestor. The same results now follow in the case of a stranger wrongfully intromitting the movable estate of a

deceased person. See Bell's Comment. Intuition, in philosophy, a term signifying the mental faculty of spontaneous knowledge of the truth as opposed to its discovery by any ratiocinative process. It was borrowed from the scholastic theology of the middle ages, which reached is height in the teaching of Aquinas, and the feature of which was the systematisation and rationalisation of re-ligious dogma. In particular, I. in scholastic theology meant a knowledge of God obtained by revelation. The term 'intuitional' as used later in the science of ethics is of the first importance, in that it denotes school of thought diametrical opposed to the utilitarian. The i diametrically The intuitionists define the principles and method upon which are to be determined right rules of conduct by reference to a supposed moral sense, or, in other words, duty is to be measured by certain fundamental axioms or intuitively known principles of moral reasoning. The utilitarians, on the other hand, adopt no such subjective standard of good conduct, but estimate the moral value of an act by reference to the various criteria of utility, general happiness (universalistic hedonism), individual happiness (egoistic hedonism), an objective standard of human duties which is thus contemptuously criticised by Carlyle: 'The word Soul with us, as in some Slavonic dialects, seems to be synonymous with Stomach;' though Carlyle himself, in his somewhat

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Right, is perhaps with caustically described by Chesterton as perpetuall

as with a kind of flat-footed stamping, that people ought to tell the truth; apparently supposing that truth; apparently supposing that telling the truth is as easy as blind hookey.' The authority of the conscience or moral sense as opposed to what may generically be termed the social affections was first advanced. among English philosophers, in a dis-tinct form by Butler in his Dissertation on Virtue, 1739, and carried further by Reid in the Essays on the Active Powers of the Human Mind, 1788. Reid insists on the essential difference between self-love, or regard for one's own good, and sense of duty, or conscience, where Butler seems to have leaned to a belief in their identity in a future life. Reid, like Lecky in the History of European Morals, gauges the truth of ethical theories ultimately by the common moral opinion of mankind, and enumerates twelve first principles or Is. from which may be rationally deduced the rules of morality. These consist of such ontological principles as that everything exists of which we are conscious: the thoughts of which I am conscious are the thoughts of a being called myself (cf. Descartes, Cogito, ergo sum); we may be certain of our identity as far as we remember; a principle borrowed from the Stoics, to the effect that the natural faculties by which we discriminate truth from error are not fallacious; and merely

list of intuitive principles of all regard for happiness able to the sole governing of conduct, the moral reas Is, are compendiously defit principles of benevolence, j

truth, purity and order. duction into the system of the term 'reason,' which, as we have seen, is directly antithetical to the primary notion of I., connotes merely the supremacy of reason over purely nonrational impulses or instincts (q.v.). Kant's use of the word Anschauung (literally 'beholding') is practically equivalent to perception, and he gives as instances of true forms of beholding, time and space. But regarded subjectively, Kant names such Is. transcendental (unknow-such Is. transcendental (unknow-such Is. transcendental (unknow-such Is. transcendental) though objectively they are empirically knowable. The trend of English philosophy may be said to be generally utilitarian, and, comparatively, clean cut, practical, and unimaginative; the continental philosophy, especially of the German chiefly in military, but also in naval

mainly intuitional, tinged sticism, and fertile in brilagination. Modern thought may be said, indeed, to be for the most

part opposed to the identification of reality with the mere phenomena of experience, and to such gnosticism and logical idealism as found expression in the system of Hegel; and to have gone rather to the opposite extreme in the apotneosis of the constant of I. as opposed to reason. For expositive irrationality of things as a definite metaphysical tenet, while the investigation of phenomena is left to

the sphere of the narrower sciences. Intussusception, or Invagination, is that condition in which one part of the intestine passes into the adjoining portion, telescopically, just as the finger of a glove may on taking it off the hand. The contained portion is nipped and strangled, with the result that all the dangers of hernia (q.v.), but in a much more dangerous form, are present. It is a frequent and fatal cause of obstruction of the bowels in children, and is not very The included common in adults. part becomes gangrenous, and death may follow from shocks. If the patient is strong enough to bear the inflammation and shock, the peritoneal surfaces of the upper and lower portions may adhere at the point where the intussuscepted portion enters the outer one, and the whole included portion may slough away, and be passed by the rectum. Several feet of bowel have been evacuated in that way, and complete Morality endeavours to formulate a is very rare, particularly amongst

rical treatment is usually nd consists in opening and reducing the intuscertain skilful means. stages a copious enema estore the normal conie use of purgatives can

only make the condition worse. Inula, a genus of composite plants, occurs in Europe, Asia, and Africa, and is represented in Britain by four species. I. Helenium, the elecampane, is a perennial herbaceous plant found in moist meadows. The root is moist meadows.

officinal and has tonic and stimulating properties.

Inulin (C₇₂H₁₂₄O₆₂) is a starch-like substance which is found in dahlia and like tubers, where it forms a reserve food supply. It is coloured yellow by iodine, and is quantita-tively hydrolysed to the sugar

from abroad as being unfit for duty

on account of climate, wounds, etc.

Invasion. In the theories of the rights conferred by international law (q.v.) on invaders it is necessary to distinguish between military occupation and conquest. Occupation may imply no more than the placing of territory under the authority of a hostile army by way, as it has been expressed, of sequestration, without any intention of appropriating it. Conquest, on the other hand, means acquisition. No such distinction was drawn until the middle of the 18th century, with the result that the inhabitants of a territory in the possession of a foreign army were bound session of a foreign army were bound not only to swear allegiance to the invader, but to assist him in all respects as if he were the legitimate sovereign. After the Seven Years' War juristical writings, notably those of Vattel, began to advance the doctrine that a sovereign does not lose his territorial rights in war until a formal cession at the close of the war by treaty. The prevalent modern theory appears to be that the occupying army merely takes temporary possession for certain purposes, while the sovereignty of the original owner continues for all other purposes. But until recently the practice of bel-ligerent governments differed from the theory which presupposes that since the invader is invested with no more than a substituted or quasi-sovereignty, the national character of the people and soil remain un-changed. The practice is a corollary of the mere rule of might, that the lives and property of the inhabitants hves and property of the mandrants being necessarily at the disposal of the occupant, the inhabitants ac-knowledged his sovereignty in con-sideration of his foregoing the ex-treme rights vouchsafed by superior force. The theory of substituted sovereignty, however, is generally re-garded as a useless fiction, and it may be said that at the vegent deep he said that at the present day military occupation confers only such over the inhabitants and territory as are necessary to the prosecution of the war, or, as Mr. Hall expresses it, the right of exercising such control, and such control only, within the occupied territory, as is required for his safety and the success of his operations, This view has now found expression in the draft articles of the Declaration of Brussels, and the rules formulated at the Hague Conferences as to the rights of an army in occupation of an enemy's territory. The question of what acts an occupying army may legitimately do, depends on circumstances. The general principle, accord-

service, for a soldier invalided home ing to Professor Westlake, is that everything is prohibited which is not calculated to contribute to success in the military operation concerned, and that even when a thing does not fall under any absolute prohibition it may only be done in the circumstances and in the measure in which it may reasonably be expected to contribute to such success.

The articles above mentioned prohibit (1) any compulsion of the population of occupied territory to furnish information about the army of the other belligerent or his means of defence; (2) any pressure on the population to take an oath of allegiance; (3) confiscation of private property, but without prejudice to the right to confiscate by way of punishment or under stress of military necessity; and (4) pillage; and enjoin (a) the respect of family honours and rights, individual lives and private property, together with religious convictions and liberty, and (b) the general duty of taking all steps to re-establish and of taking all steps to re-establish and ensure, as far as possible, public order and safety, while respecting, unless absolutely prevented, the laws in force in the country (for full information on these points see Mr. F. E. Smith's International Law, Dent and Sons, Ltd.). The rights of conquest are, of course, much wider. Mr. Smith defines conquest as the permanent absorption of all or part of the territory of a defeated enemy, but lays it down that a title by conquest is only complete if the conqueror has the material strength to make his conquest good, and has exhibited the intention of appropriation. See Hall, International Law; F. E. Smith, International Law. Invention, see PATENT.

Inventory and Inventory Duty. An I. in regard to the administration of the estates of deceased persons is a list or schedule in which are enumerated all the articles comprising the personal property of the deceased. It also denotes a detailed descriptive list of the assets of a bankrupt, and the property comprised in the schedule to a bill of sale on personal effects. The duty of making an I. of a deceased's effects falls upon the executor or administrator, who should make it in the presence of at least two of the creditors of the deceased or next of kin, or any two credible persons, and it should describe the articles scriatim, with the value at which each has been appraised. especially as it may afterwards be admitted as evidence to show what is due to the beneficiaries or creditors. But to be admissible as evidence it should on completion be signed and sworn before a commissioner for oaths.

It may be noted that any person; interested in the estate may call upon executor or administrator exhibit an I., and to render account of his administration. Scots law the term I., besides the above applications, is used to denote the schedule made by an heir of the heritable estate of his ancestor with the object of limiting his liability for his ancestor's debts to the amount of the value of the estate so inventoried. A tutorial and curatorial I, means an 1, of the whole heritable and movable property of a minor, pupil, or lunatic made under an Act of 1672 by a tutor (guardian) or curator, the procedure in regard to which is now enacted in the Pupils' Protection Act, 1849, and the Guardianship of Infants Act, 1877. Any person who intromits (see under Intromission) with the estate or interferes in the management of the estate of a deceased person must make an I. of the personal estate comprised therein. I. duty, which in Scots law is analogous to the English probate duty, is not now of much importance, as it applies only to the personal estates of persons dying before Aug. 1, 1894, having as to the estates of persons dying after that date been replaced, together with probate and affidavit duty, by estate

Inveraray, the cap. of Argyll, Scotland, and a parl. bor., 45 m. N.N.W. of Greenock, on Loch Fyne. Inveraray Castle, the chief scat of the Duke of Argyll, lies N.W. of the town. It was built in 1744 as the seat of the Argyll family, the head of the Campbell clan, and rebuilt in 1880. Pop. 1204.

duty (see DEATH DUTIES).

Invercargill, the cap. of Southland co., New Zealand, 139 m. S.W. of Dunedin. Its port is Bluff Harbour, which affords good anchorage for vessels under 1000 tons. It has It has large breweries, foundries, large meat-freezing works, and flour and saw mills, and manufs. boots and shoes. Pop. about 12.000.

Inverelyde, Sir John Burns, first where the most important athletic Baron (1829-1901), a shipowner, elder succeeded his father in the manage-ment of the Cunard Steamship Company, In 1880, on its conversion into a limited liability company, he was a prointed chairman. Besides his lands of the contract of the liability company of the lands of the liability company of the lands of the lands of the liability company of the lands of th appointed chairman. connection with this line, he also took | Moray an active interest in the service be-

Company by his son G. A. Burns (1861-1905).

Inverell, a tn. and railway station of New South Wales, Australia. It is situated in Gough co., 280 m. N. of

Sydney. Silver, tin, and diamonds are mined in the neighbourhood, and vines are cultivated. Pop. 3300.

Inveresk, a par. and vil. of Edinburgh, Scotland, situated on the Firth of Forth. Manufs. paper. The

battle of Pinkie (1547) was fought in the parish. Pop. (1911) 20,360. Invergordon, a bor. and watering-place of Ross-shire, Scotland, situ-ated on Cromarty Firth, with a trade in farm stock and dairy produce. Pop. (1911) 1051.

Inverkeithing, a parl. bor. and vil. of Scotland in Fife co., on the Firth of Forth, 10 m. from Edinburgh. It forms one of the Stirling group of burghs. Has a good harbour and shipbuilding yard, and there are mills, tanneries, and brickworks. Pop. (1911) 9626.

Inverlochy, a ruined castle in Inverness-shire, Scotland, on the R. Lochy, 14 m. N.E. of Fort William The scene of the defeat of Argyll by the Marquis of Montrose in 1645.

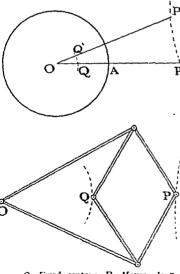
Inverness, a municipal bor, and seaport, and co. tn. of Inverness-shire, Scotland, situated at the mouth of the R. Ness at the junction of the Beauly and Moray Firths, 108 m. W.N.W. of Aberdeen. On account of its beautiful environment and fine buildings, it is the headquarters of an immense tourist traffic throughout the summer. The chief buildings of note are the cathedral, royal academy. and county-hall, and it has a fine suspension bridge, and the famous Clach-na-Cudain, regarded as the town palladium. Ship-building, iron-founding, distilling, and the manuf. famous of woollen goods are the principal industries, and the town has good roads, and a fine harbour and docks. The open spaces of the town include Victoria Park, and the famous ground

Ocean. Bound an active interest in the service between Glasgow and Ireland. In 1897 Beauly Firth, on the S. by Arryll and Buron Inverelyde. His publications include: Something about the Cunard Line; The Adaptation of Merchant Steamships for War Purposes; Outer and Inner Hebrides. Covers an Glimpses of Glasgow Low Life; 4 area of 4211 sq. m. For the most part wild Night, etc. He was succeeded as it is wild and mountainous, and charchairman of the Cunard Steamship acterised by the most gorgeous is

Several of the mountains ! scenery. Several of the mountains exceed 3000 ft. in height, and Ben Nevis, the highest mountain in the British Isles, reaches an altitude of 4406 ft. There are a few fertile tracts in some of the glens and shores of the sea locks, and in the N. on both sides of the R. Ness. About 5½ per cent. of the shire is culti-About

ry are tanning nverness. LCOD-

siderable trade, augmented by the traffic through the Caledonian Canal, and is the centre of a railway system, connecting it with Perth, Edinburgh, Caithness, etc. The three great rivers of I. are the Spey, Ness, and Beauly, and the number of lakes and hill tarns is great, Loch Ness being tarns is great, Loch Ness being the most beautiful and best known of the larger lakes. The county returns one member to the House of Commons. Pop. (1911) 87,270. See J. Cameron-Lees, History of the County of Inverness, 1897.



O, Fixed centre; P, Moves along given curve; Q. Tracing point.

Inversion. If Pand Q are two points,

is said to be the inverse of P with respect to the given circle. moves along a given curve, the process of finding the locus of Q (the inverse curve) is called inversion. A simple hinged framework of freely jointed rods affords a mechanical construction for the inverse curve. more advanced work curves are often inverted with respect to conic sections.

Inversion, in music, a term applied to chords and intervals when the relative position of the component notes is changed. Perfect intervals remain perfect when inverted, but major, minor, diminished, and aug-mented are reversed by I.; major become minor, augmented become diminished, and vice versa in all cases.

Invertebrates, a collective term for all those animals which agree in not possessing that combination of attributes which make a Vertebrate, namely a dorsal nerve chord, a notochord, gill-slits on the pharynx, a ventral heart, and eyes which are outgrowths of the central nervous system. chief groups of I. are Protozoa (uni-cellular) and the Metazoa (multicellular), further divided into Porifera. or sponges; Collentera, unsegmented worms; Annelids, or segmented worms; Annelids, or segmented worms; Echinoderms; Anthropoda, including Crustacea, Insecta, and Arachnida; Mollusca. The dividing line, however, is no longer as clear as it was once thought, and some species which were formerly classed as I., such as the Ascidea, are now classed as degenerate vertebrates.

Invert Sugar, an equimolecular mixture of dextrose and levulose (d-glucose, and l-fructose), obtained by hydrolysing cane sugar with dilute acids. It readily ferments, and is used in the preparation of sparkling

Inverurie, a municipal burgh Aberdeenshire, Scotland, 161 m. N.W. of Aberdeen, at the confluence of the Urie and Don. It forms one of the Elgin group of parliamentary burghs. It is an important centre of the cattle trade with London, and the chief manufs. are mineral waters, paper-making, and milling. Pop. (1911) 3960.

Investiture, in feudal and ecclesiastical history, the act of giving possession of a manor, office, or benefit, accompanied by a certain ceremonial such as the delivery of a clod, a banner, a branch, or some other symbol, more or less designed to signify the power or authority which it is intended to convey. Temporal sovereigns claimed the right of investing the bishops with the temsuch that the rectangle OPOQ= porallities of their sees by the formal the square on radius OA, then Q presentation to them of the ring and

crozier, a claim which led to the and the double points are imaginary famous 'Investiture Dispute' be and O lies between each pair of tween Henry I. and Anselm in England, and to the bitter struggle between the pope and the emperors of Germany in the 11th and 12th centuries. At the Diet of Worms (1122), it was finally decided that the emperor should confer I. by a touch of the sceptre only, thus making no claims to confer spiritual power.

Investors' Review, a sixpenny weekly paper belonging to and edited by Mr. A. J. Wilson. It has been published in the present form since 1898, having been previously issued as a five shilling quarterly from 1892-94, and as a shilling monthly from

1894-98.

Invincibles (Lat. in not, and vincibilis, conquerable), members of a secret Irish society, composed of assassins and the worst of the Fenjan associations. The main object of the society was the assassination of officials. The chief member was known as No. 1, and each was acquainted with but two others—the member by whom he was nominated. the one whom he in turn and nominated.

Involucre, a botanical term used in reference to the whorl or whorls of bracts beneath some flowers. the daisy head is protected by a number of small and scaly leaves which form an I., and in umbelliferous plants the name is applied to the bracts at the base of the chief

branches.

Involute and Evolute, see CURVE. Involution, the mathematical process of raising a quantity to any power. Its inverse process is evolu-tion, the finding of a root. Whereas a quantity has one square, one cube. and generally one nth power, it has two square roots, three cube roots, and generally nnth roots. In algebra, expressions of one term only are dealt with in indices (see INDEX). For expressions of two or more terms, the binomial theorem and multinomial theorem give formulæ. In higher geometry the name I. is given to a series of pairs of points on a line, any pair of which P, P are connected by a relation OP.OP = F, where O is the centre and k the radius of the I. If D_1 and D_2 are points given by the relation $OD_1^2 = OD_2^2 = k^2$ each corresponds to itself, and they are known as the double points of the I. If of io AA1, BB1, CC1 be three pairs of acid.

corresponding points, and non-over-lapping, where the radius and double points are real, and any two corresponding points are both on the same side of O.

Inwood, Charles Frederick (1798-1840), an architect, second son of William I. He co-operated with his father in the designing of Westminster Hospital and other buildings. and also designed All Saint's Church, Great Marlow (1835), and the St. Pancras National Schools, London.

Inwood, Henry William (1734-1843), an English architect, eldest son of William I. He travelled in Greece, whence he drew the inspira-tion for many of his designs in which he was associated with his father. He published: The Erechteion at Athens, 1827; Of the Resources of Design in the Architecture of Greece, Egypt, etc., obtained by studies from Nature, 1834.

Inwood, William (c. 1771-1843), an English architect and surveyor. In English architect and surveyor. In 1821 he planned the new galleries for St. John's Church, Westminster; in 1832-33 designed, with his second son, the new Westminster Hospital and several other London churches. His chief work is St. Pancras New Church (1822), designed after Greek models by him and his eldest son. He published Tables for the Purchasing of Estales, etc., 1811.

Io, in Greek legend, the daughter of Inachus, the first king of Argos. Under the name of Callithyia Io, she

Under the name of Callityia Io, she was regarded as the first priestess of Hera. She was loved by Zeus, who to protect her from the anger of Hera, transformed her into a white heifer (according to some authorities, the transformation was the work of Hera herself). The hundred-eyed Argus was then set to watch her, but Zeus despatched Hermes to kill him. and Io was released. But Hera's wrath pursued her, and tormented by a gad-fly, she wandered all over the earth, till at last she reached Egypt, where she was restored to her original form and became the mother of Epaphus. Æschylus gives a of Epaphus. Æschylus gives a different version of this myth in his Prometheus. See Engelman, De Ione, 1868.

Iodic Acid (HIO₂), a white crystal-line solid, obtained by the oxidation of iodine with concentrated nitric AA, BB, CC be three pairs of acid. On gentle heating it loses corresponding points the anharmonic ratio of any four, e.g. (ABB'C), is to dine pentoxide, which breaks up on further heating into its elements. I. A. the four corresponding points, viz. is acid to litmus, forming salts, the (ABBC). Also (D,D,PP) form an indates, of which sodium iodate, harmonic range. I. ranges are of two occurring in caliche, is the principal kinds—overlapping, where the radius I. A. is a strong oxidising agent.

belongs to the halogen group (q.v.). It occurs as iodide in sea-water, from which it is collected by certain seaweeds, notably Laminaria digitata and L. stenophylla which contain as much as 0.5 per cent. It is also present in crude chili, saltpetre, or caliche as sodium iodate.

Extraction from sea-weed.—The weed is burnt in pits and the ash or kelp boiled up with water and the solutions concentrated. The less soluble salts separate on cooling, whilst the iodides remain in solution. The liquor is then distilled with

Extraction from caliche. — The mother liquors, from which the sodium nitrate has been separated as far as possible, are treated with a solution of sodium hydrogen sulphite as far as possible, are treated with a colude cement, bricks, and sulphuric solution of sodium hydrogen sulphite acid, and there are machine shops, which precipitates the I. as a black muddy substance which is purified by sublimation. When pure, I. is a greyish-black crystalline substance with a metallic lustre and a peculiar codour. It has a specific gravity of as a hero at Thebes. He aided 5.0, and melts under pressure at 114°C. On heating it sublimes, giving hydra, and helped Hercules' children rise to a purple yapour. It is only in their contest with Eurrysthems. odour. It has a specific gravity of 500, and melts under pressure at 114°C. On heating it sublimes, giving rise to a purple vapour. It is only sparingly soluble in water, more freely in alcohol, and especially in alcohol, and especially in potassium iodide solution forming brown solutions. In carbon disulphide and chloroform the solution is purple. With starch, I. forms an intense blue coloration, and by means of this test one part of I. in a million parts of water may be detected. Chemically, I. is the least active of the halogens, but neverthe tected. Chemically, I. is the least lesser of Attic tragedians. He active of the halogens, but nevertheless combines directly with many metals, phosphorus, etc., and also to a certain extent with hydrogen to form hydriodic acid. Medicinally, I. and its compounds are of great importance. Its solution in alcohol (tincture of I.) is used externally for subduing inflammation. The iodides various epigrams, preans, elegics, of mercury, iron, and especially encomia, and comedies. He also potassium are used to increase the activity of the absorbent activity of the absorbent generally, and in certain chronic rheumatism, in s

affections, mercury and lead poisoning, etc. Compounds of I., such as iodoform (a.v.) and allied substances, are largely used as antiseptics; silver iodide in the making of photographic plates; and large quantities of I. and its compounds are used in technical chemistry. Tri

Iodoform, or Tri (CHI₂), a pale yellow

stance melting at 119°

readily giving up its oxygen with the liberation of iodine.

Iodine (symbol I, atomic weight 127), a non-metallic element which solution of 50 parts potassium iodide, 6 parts acetone, and 2 parts sodium hydroxide dissolved in 1500 parts water. I. is slightly soluble in water. and has strong antiseptic properties, being largely used in medicine for this reason. It differs from chloroform (q.v.) only in having iodine in place of chlorine, and in the form of

vapour acts as an anæsthetic.
Iodole, or Tetriodopyrrol (C.I.NH),
a yellow crystalline substance melting at 140° C., which is used as an antiseptic in place of iodoform. It is equally effective, but devoid of

odour.

Iola, a city of Kansas, U.S.A., co. seat of Allen co. on the R. Neosho, 80 m. S.E. of Topeka. The river furnishes considerable water power, and the town possesses an artesian medicinal mineral well. Manufs. include cement, bricks, and sulphuric

in their contest with Eurystheus when the latter made war on them.

when the latter made war on them.
Iolite, see CORDIERITE.
Ion: 1. The legendary ancestor of the Ionian branch of the Greek race, brought up in Apollo's temple at Delphi. Euripides takes the story as the theme of one of his tragedies.
2. A Greek poet of Chios, living in the age of Pericles, and one of the lesser of Attic tragedians. He lesser of Attic tragedians.

account of the See F. Allègre,

Iona, or Icolmkill, one of the islands of the Inner Hebrides, Argyllshire, Scotland, separated from Mull by the Sound of I. It is about 3½ m. long, and 1½ m. broad, and covers a total area of about 2000 acres, 600 of which are under cultivation, oats, potatoes, and barley ce chief crops. The coast is on the E., but rocky on The inhabitants support

ing. I. is celebrated in history from empire. its connection with Saint Columba. who lived there about 565. ancient ruins are of interest, the most noted being St. Oran's Chapel, attached to which is a burying-ground containing the tombs of Scottish kings before Malcolm Canmore, and four Irish and eight Norwegian kings. There are also fine ruins of the Cathedral Church of St. Mary. In 1905 the cathedral was restored opened for public service. about 213.

lone, the name of a genus of isopod crustaceans belonging to the family Bopyride; the species are parasitic on the bodies of decapod crustaceans, are characterised by long,

branched thoracic feet.

Ionia, a city of Michigan, United States, and the cap. of Ionia co. It is situated on the Grand R., 34 m. E. of Grand Rapids. Manufs. include furniture, furniture, wagons, rattan goods, petrol engines, and pottery. Pop. (1910) 5030.

from the Peloponnesus, and derived its name from the Ionians, one of the ancient tribes of Greece. The country was very flourishing, and out of it arose twelve great cities: Miletus, Myus, Priene, Ephesus, Colophon, Lebedus, Teos, Erythræ, Clazomenæ and Phocœa, together with Samos and Chios, which formed a league more of a sacred than political character. It held a periodic festival in the shripe of Parionium on Mt in the shrine of Panionium on Mt. Mycale near Priene, when religious worship was observed and games celebrated. Each city was inde-pendent and democratic, but united with the rest of the cities of I. by common interests and religious worcommon interests and religious worship. Subsequently Smyrna was admitted to the league. The cities radually fell under the sway of Lydia, but about 550 B c. became subject to Persia, against which they rose in insurrection about 500 B.C. They were defeated off Lade (498), and near Ephesus (496). During the Persian invasion of Greece, they were forced into service by their conquerors, but deserted to the Greeks at the battle of Mycale (479). They at the battle of Mycale (479). They then became the independent allies of Greece, but in 387 with other Greek cities became subject to Persia. They maintained a good deal of independence, however, but were finally subdued by Alexander the Great after the fall of Miletus (334). I. was I. was

themselves on agriculture and fish-land became part of the Turkish

Ionian Islands, a chain of islands extending along the western and southern coasts of Greece, and comprising Cephalonia, Corfu, Cythera (Cerigo), Ithaca, Paxo, Santa Maura, and Zante, with some thirty dependencies. Total area 1100 sq. m. All the islands except Corcyra were included in the later Roman empire; Corfu and Cephalonia were captured by Robert Guiscard (1081): in 1401 Corfu fell into the hands of the Venetians who extended their sway over the islands, but finally ceded them to France (1797). After coming under the influence of Russia and Turkey they accepted British pro-tectorate (1809-15), who continued to have influence over them until 1864 when they were annexed to Greece under King George. Pop. 260,000. Ionian School of Philosophy, which

flourished during the 6th and 5th centuries B.C., was chiefly interested in the primordial constitutive principle of the universe. The first of them was Thales, his chief successors being Anaximander, Anaximenes. The earlier philosophers sought to explain the material universe in terms of matter and force. finding material substance in everything that exists. About the time of Heraclitus a new thought sprang up. Anaxagoras asserted that everything existed from the beginning in an infinite number of infinitesimal atoms which were the seeds of all things which have since been produced. Diogenes of Apollonia elaborated on the universal homogeneity of nature, the universal substance of all things being air. The later Ionians, Archelaus and Hippo, reverted to the earlier thought of Thales.

Ionian Sea, in the Mediterranean, lies S. of the Adriatic and divides

Italy from Greece.

Ionic Dialect, was one of the four varieties of Greek language. It was principally spoken in the Ionian colonies of Asia Minor, but was not uncommon in some of the islands of the Ægean Sea. Out of the Old Ionic arose the language of epic poetry. Herodotus distinguished four varienerodotus alsunguished four varieties of the New Ionic, in one of which he wrote. The I. D. is not very different from Attic, but has a richer vowel-system which gives it a certain actiness of source. softness of sound

Ionic Order of Architecture, see

ARCHITECTURE-Greece.

Ionidium, a genus of violaceous plants, inhabits tropical and sub-tropical countries, especially America. Several species are used medicinally account of their emetic roots; the 64 B.C. It was later invaded by Turks chief of these is I. Ipecocuanha,

Ipecacuanha of Brazil.

Ionone (C10H20O), a ketone of the terpene series. It has a fine odour of violets, and is made for the produc-

tion of the artificial perfume. Ions, see Electricity—Electrolysis,

and ELECTROLYSIS.

los, one of the Cyclades islands of Greece, with a fine port. According to tradition Homer was buried here.

Pop. 2000.

I.O.U., is, without additional words an acknowledgment of debt. It difan acknowledgment of debt. It dir-fers from a promissory note in that it requires no stamp; and it need not be addressed to the creditor by name. Far from being a negotiable instru-ment like a bill of exchange or pro-missory note, an I.O.U. is merely evidence of an account stated between the parties to it; but it is not evidence of money lent by the person

who signs it.

Iowa, the north-central state of lowa, the north-central state of the U.S.A., popularly known as the 'Hawkeye State,' covering an area of 56,025 sq. m., 55,475 being land surface. Bounded on the N. by Minnesota; on the S. by Missouri; on the E. by Wisconsin and Illinois; and on the W. by Nebraska and S. Dakota. The surface is undulating, pearly four 5fths compresses. Dakota. The surface is undulating, nearly four-fifths comprising rich prairies, forming good pasturage. The soil is generally fertile, the chief barley, oats, potatoes, fruits, etc. In the E. portion of the state minerals abound, including coal, lead, zinc, iron, limestone, gypsum, and clay. The chief industries are dairy produce, and those connected with the agricultural and live-stock resources. of the state; flour-milling, pork-packing and the manufacture of farm implements. The climate is one of great extremes of heat and cold, with generally a dry winter and wet summer. The settlement of Iowa dates from 1832, and it was admitted into the Union in 1846. It is divided into ninety-nine counties, and the capital is Des Moines. Pop. (1910) 2,224,771. See W. Salter, Iowa the First Free State in the Louisiana Purchase, 1905.

Purchase, 1905.
Iowa City, the cap. of Johnson co., Iowa, U.S.A., on the Iowa R., 23 m. of the Cedar Rapids. It is the seat of the Iowa State University founded in 1860, which has various departments and accommodates about 1500 ments and accommodates about 1900 students. It has foundries and machine shops, and the industries include flour-milling and meat-packing. Pop. (1910) 10,091.

Iowa River, rises in Hancock co. in the state of 1000 and 1000 and 1000 in the Social War.

Iowa River, rises in Hancock co. in the state of 1000 and 1000 in and 1000 in a the Freeks were going to the Trojan war Artemis produced a calm, so

known as the white Ipecacuanha Mississippi in Louisa 'co. It is to distinguish it from the true navigable to Iowa city and is about 350 m. in length.

Ipecacuanha, an emetic substance obtained from the roots of several S. American plants. The true I. is a species of Rubiaceæ known by the various generic names of Cephaelis, Psychotria and Uragoga, and occurs in damp forests of Brazil. It is a small herbaceous plant with a prostrate stem and an annulated roof. In medicine it acts as an emetic and stomachic, aids respiration and increases perspiration. The white I is a violaceous plant, known botanically as Ionidium Ipecacuanha; the bastard I is a species of Asclepiadacea bearing the name Asclepias curassavica.

Ipek (Pekia, Peč, or Petch), a prov. and tn. of former European Turkey, vilayet of Kossovo, 73 m. from Scutari, on the White Drin, or Bistrica (Bitritsa). It has a noted monastery, residence of the Servian patriarchs up to 1690. Fruits (especially mul-berries) and tobacco abound in the neighbourhood, and the silk industry

thrives. Pop. about 15,000 (mainly Mohammedan Slavs). See Durham, Through the Lands of the Serb, 1904. Iphicles: 1. A son of Amphitryon and Alcmere, and a twin brother of Hercules. While the two babies were in a cradle, Juno sent two serpents to kill Hercules, who squeezed them to death in his hands. 2. Was a son of Phylacus, and Clymene, whose cattle

were famous for their size.

Iphicrates (c. 420-348 B.C.), a celebrated Athenian general, the son of a shoemaker. He changed the dress and arms of the Athenian soldiers, and introduced the pellasta (or targeteers. πελτασταί), Or These light troops were originally composed of Thracian mercenaries; I. trained them and made them into a thoroughly efficient force. They were armed with small light shields (πέλται), and (πέλται), strong linen corslets in place of the heavy shields and coats of mail. He also provided them with longer swords and spears. He fought in the Corinand spears. He rough in the Corn-thian War, and defeated the Spartans in 392. He helped Scuthes, king of Thracian Odrysae in his campaigns, and in 378 joined the Persian forces in Egypt. After 371 he assisted his father-in law, Cotys, king of Thrace, in war against Athens, but was subsequently pardoned, and took joint command of the Social War,

that the fleet in Aulis was detained fragan bishopric. from sailing. The soothseer Calchas advised Agamemnon to sacrifice I. in order to appease the goddess, and Agamemnon ultimately consented. According to one legend she died on the altar; but according to another Artemis put a hart or a goat in her place at the last moment, and carried her off to Tauris. There I. became priestess in the temple of Artemis, and saved her brother Orestes with his friend Pylades, from being sacrificed to the goddess by fleeing with them to Greece, carrying away the statue of Artemis from the temple. I, was worshipped in Athens and in Sparta, and it is probable that she was really the goddess under another name.

Ipomæa, a genus of Convolvulacere, consists of about 400 species of herbaceous and shrubby plants growing wild in warm and tropical countries; many are cultivated in milder climates for their showy flowers, Batatas is the sweet potato; I. purpurca, the morning-glory; I. purga, the jalap; I. pandurata, the wild

potato-vine.

Ipsambul, or Abu Simbel, ruins in Nubia, Upper Egypt, on the R. Nile. There are two rock temples which were built by Rameses the Great, in the sides of steep cliffs. They contain numerous statues and sculptures.

Ipsus, in ancient geography, was a tn. of Asia Minor, in Phrygia, where, in 301 B.C., Antigonus was defeated

and killed.

Ipswich: 1. A municipal, co., and parl. bor., and the co. tn. of Suffolk. England, at the head of the Orwell estuary, 69 m. N.E. of London. The older part of the town with its narrow irregular streets is very picturesque, and contains a few interesting antiquarian remains, Sparrowe's House (1567), Archdeacon's Place (1471), and Wolsey's Gateway (1528). There are some fine churches, mostly Perpendicular in style, including St. Margaret's and St. Mary-at-Quay, both with beautiful oak Tudor roofs, St. Nicholas', and St. Peter's in Decorated style with a Norman font in marble. There is a beautiful arboretum, which is open to the public, and part of Christchurch Park is owned by the corporation. The industries include large engineering and agricultural implement works, artishoe

neries.

19 ft.

Area, 8112 acres. 9. 2. A tn. of Iragan bishopric. Area, 8112 acres, Pop. (1911) 73,939. 2. A tn. of Stanley co., Queensland, Australia, on the R. Bremer, 232 m. W. of Brisbane. It is the centre of a rich agricultural and coal-mining dist., and has manufs, of woollen goods, and foundries. Pop. (1911) 10,000. 3. A tn. of Essex co. Massachusetts, U.S.A., 27 m. N.N.E. of Boston. It has manufs. of hosiery, textiles, soap, flour, and lumber. The town was founded, under the name of Agge-wam, in 1633, and is of considerable historical interest. Pop. (1910) 5777.

Iquique, a city and scappet of Chile, in the prov. of Tarapaca, 820 m. N. of Valparaiso, on the Pacific coast. It is a city of considerable commercial importance, chiefly owing its propagative to the constitution of the pacific coast. prosperity to the export of nitrate of soda and borax, obtained from the desert region of the province. Until 1830, when the export of nitrate began, I. was only a small fishingvillage of little importance. It is now connected by rail with the inland town of Tarapaca and various mining It is well provided with centres. banks, tramways, electric light, tele-phones, schools, clubs, newspapers, etc., and has steamship and cable communication with the outside world. Twice, in 1868 and 1877, the town was nearly destroyed by an earthquake and tidal wave, and in the war between Chile and Peru, it was ceded to the former by treaty in 1883. Pop. about 42,500.

Iquitos, a tn. of Peru, in the dept. of Loreto, situated on the Maranon. It is the headquarters of the Peruvian

navy, and the cap. of the prov. of Bajo Amazonas. Pop. 15,000. Iquitos, a tribe of S. American aborigines, in the region between aborigines, in the region between Peru, and Ecuador, on the N. part of the Upper Amazon. They are naked savages, and use poisoned arrows; their language is unknown. Attempts were made to civilise them as early as 1727, but most of them relapsed into their barbarous habits.

Irak-Ajemi, a central prov. of Persia, almost corresponding to the ancient Media. Its surface consists very largely of elevated table-lands,

by the Vikings, out in 1200 it had risen to sufficient importance to face a charter. Wolsey was born there in 1471. The town returns two members to parliament, and is a suf-

Area, 138,190 sq. m. Pop. (estimated) the United Kingdom of Great Britain 3,000,000

Irak-Arabi, the most south-easterly dist. of Turkey in Asia, almost coincident with ancient Babylonia (q.v.), lying between the lower courses of the Tigris and Euphrates. The district ruins of Babylon, includes the Seleucia, and Ctesiphon, as well as Seleucia, and Ctesiphon, as the modern towns of Bagdad, Basra, and Meshed Ali. The exports are valued at £2,000,000 per annum, and include dates, grain, millet seed, rice, and wool. Pop. (estimated) 2,000,000.

Iran, or Eran, originally the name of the great plateau, bounded on the N. by the Caspian Sea and Turanian Desert, on the S. by the Persian Gulf, Desert, on the S. by the Persian Guit, and Indian Ocean, on the E. by the Indus, and on the W. by Kurdistan and the Tigris. The name, which is now the official designation of the Persian kingdom, is derived from Aryāna, 'the country of the Aryans.' Strabo declared that the name and language extended to the Persians, Medes, Sogdians, and Bactrians, as well as to the inhabitants of the S.E. of I. See PERSIA.

Irapuato, a tn. of Mexico in the state of Guanajuato. It is an im-

portant railway junction, and is situated on the railway between Mexico and Guadalajara. Pop. 20,000.

Irawadi, or Irrawaddy, the chief riv. of Burma, is formed by the confluence of the two arms of the Malikha and Meh-kha, which rise in the N.E. of Assam, near the Tibetan frontier, a short distance above Bhamo. If follows generally a course from N. to S., a total distance of 1500 m., and falls into the Bay of Bengal, between the Bay of Martapan and Cape Negrais, through a wide delta with nearly a dozen mouths. The delta is a fertile rice-growing district, but only two of the mouths, the Bassein and the Rangoon, are navig-able for big boats. The chief tributhe Chindwin and the taries are the Chindwin and the Shweli, and the chief towns on its banks are Bassein, Rangoon, Prome, Ava, Mandalay, and Bhamo. The river is the great highway for commercial traffic, and drains an area of about 158,000 sq. m. of very fertile

Irbit, a tn. of E. Russia in the gov. of Perm, at the junction of the Irbit and Nitsa, 110 m. N.E. of Ekaterin-burg. It is connected by steamboat lines with the principal towns of the Obi Valley, and has a large annual fair in February, considered the most important in Asiatic Russia, and attended by a number of European and Asiatic merchants. Pop. about

20,000.

Ireland, an island lying to the W. loughs) form an important feature of Great Britain, with which it forms of its geography. Those lying in the

and Ireland. It is separated from Great Britain on the E. by the North Channel (13½ m. wide) and the Irish Sea (130 m.), and on the S. by St. George's Channel (47 to 69 m.). It is encircled on the N., the W., and the S. by the Atlantic Ocean. In shape the island is an irregular rhomboid, the greatest diagonal, from N.E. to S.W., being 302 m. in length. The total area is 32,605 sq. m. I is divided into four provinces and thirty-two counties. These, with their population in 1911, are as follows: Ulster (northern division); Counties Antrim (478,603), Armagh (119,625), Cavan (91,071), Donegal (168,420), Cavan (91,071), Donegal (168,420), Down (304,589), Fermanagh (61,811), Down (304,589), Fermanagh (61,511), Londonderry (140,621), Monaghan (71,395), and Tyrone (142,437). Total pop. 1,578,572. Leinster (E. midlands and S.E.): Counties Carlow (36,151), Dublin (476,909), Kildare (66,498), Kilkenny (74,821), King's (56,769), Longford (43,794), Louth (63,402), Meath (64,920), Queen's (54,362), Westmeath (59,812), Wexford (102,287), and Wicklow (60,603). Total pop. 1,160,328. Connaught (W. midlands): Counties Galway (181,686), Leitrim (63,557). Mayo way (181,686), Leitrim (63,557), Mayo (191,969), Roscommon (93,904), and Sligo (78,850). Total pop. 609,966.

Munster (S.W. division): Counties Muniser (S.W. division): Counties (Clare (104,064), Cork (391,190), Kerry (159,268), Limerick (142,346), Tipperary (151,951), and Waterford (83,766). Total pop. 1,033,085. Total pop. of I. 4,381,951.

Physical geography.—There are no devianting mountain ranges in a

dominating mountain ranges in I., but there are detached groups of mountains, generally reaching from the coast inland. The highest elevation is some 3000 ft., while the average height of the island is about 400 ft. The chief ranges are the Mournes in The chief ranges are the Mournes in co. Down, with its highest peak Slieve Donard (2796 ft.); the Wicklow Mts. (Lugnaquilla, 3039 ft.); the Derryveagh Mts. in the N.W. (Errigal, 2466 ft.); the Sperrins in the N. (Sawel, 2220 ft.); the Macgillicuddy Reeks in Kerry (Carran Tual, 3414 ft.); the Galtees of Tipnerary and ft.); the Galtees of Tipperary, and the Slieve Bloom; the Knockmealdown (2609 ft.) and Comeragh Mts. (2470 ft.) in Waterford; and the Twelve Pins of Connemara (2695 ft.), and the low groups of Sligo and Galand the low groups of Sings and Garway. The central part of L consists of a wide plain, about 250 ft. in elevation, in which are many morasses. The largest of these is the Bog of Allen in Leinster. They are not under the state of the state healthy, and produce large quantities of peat, which is used by the inhabi-

Masks and Corrib. The Lakes of Killarney in Munster are renowned for their beautiful setting.

I. is watered by many rivers. The chief is the Shaunon, the largest river in the United Kingdom. It rises in co. Cavan and flows in a southwesterly direction into the Atlantic Ocean. The rivers flowing to the W. are for the most part short and rapid and of little use for navigation; the only other important one is the Erne, which empties itself into Donegal Bay. Along the E. coast the principal rivers are the Slaney, flowing from the Wicklow Mts. into Wexford harbour; the Ovoca; the Liffey, rising in Wicklow and flowing northwards to Dublin Bay; the Boyne, draining the central plain, and passing through co. Meath into Drogheda Bay; and the Lagan, rising in co. Down and discharging into Belfast Lough. The rivers of the N. are the Rann and the Evyle the former which empties itself into Donegal Bann and the Foyle, the former draining Lough Neagh and the latter emptying itself and the waters of its many small tributaries into Lough Foyle. The south-eastern district is watered by the Nore, Barrow, and Sur, which unite in Waterford harbour. Other important rivers of the S. coast are the Blackwater, rising in Kerry and flowing in an easterly direction to Cappoquin, where it sud-denly turns S. into Youghal harbour; the Lee, flowing through Cork into Cork harbour; and the Bandon, which empties itself into Kinsale harbour.

The coast-line of the N., W., and S. is very much broken up with inlets, loughs, and rivers. The northern coast of Antrim and Londonderry consists of sheer cliffs, with many great regular columns of basaltic formation. However, as the famous Giant's mation, known as the famous Giant's Causeway. The chief inlets of the N. are Lo

bays c Malin point, coast islands

centre are Loughs Derravaragh, islands of Inishkeas, Achill, Aran, and Ennell, and Owel; the R. Shannon flows through the Allen, Ree, and Derg; Neagh, the largest (100,000 the fine harbours of Cork and Wateracres), and Erne are in Ulster; to the N.W. lie Loughs Melvin, Gill, Gara, and Conn; and between counties by Wexford harbour, Dublin Bay, Mayo and Galway, the great Loughs Masks and Corrib. The Lakes of States of States and States of St Dundalk Bay, Carlingford Lough, Dundrum Bay, Strangford Lough, and Belfast Lough. To the N. lies Rathlin Is. in the North Channel.

Ireland

Climate.—The climate of I, resembles that of Great Britain, but is more equable. It is influenced by the Gulf Stream and by the S.W. winds. The prevailing winds cause a greater amount of rainfall, and the rain is more evenly distributed over I. than over Great Britain. In the It than over Great Dinam. In the latter country the mountains in the W. present a barrier to the S.W. winds; but I. has no mountain ridge lying N. and S., which fact accounts for the greater rainfall. The constant rain promotes luxuriant vegetation, which has given I. its name of 'Emerald Isle.' The mean temperature in January is seldom below 40°, while in July the extreme mean temperatures are 58° in the N. and 60° inland.

Agriculture.-The soil of I, is rich and eminently suited to tillage, but the political history of the country has largely

being as fic been. The

allotted has been inordinately large and the size of each extremely small. Moreover, the excessive moisture of the atmosphere in the southern and western region is detrimental to the cultivation of cereal crops. In 1899 department of agriculture was established, whose duties include the provision of agricultural instruction, as well as administrative work with as well as administrative work with regard to the improvement of live stock. Much of the land formerly used for tillage has been withdrawn gradually during the last half century for pasturage. The cause has been for pasturage. The cause has been attributed largely to the emigration of the poorer classes, resulting in a dearth of labour. The chief green crops grown are potatoes, turnips, carrots, mangel-wurzel, beet, cabbage, etc.; the cereal crops include barley, oats, and wheat; and flax is grown in large quantities in Ulster. With the increase of pasturage, there has, of course, been a much larger return of live stock with a smaller output of agricultural produce. Horses, cattle, sheep, and swine are bred with great isiands. Is, and Aran Is. Mountains border close upon the sea down to the western coast, giving a rugged and wild appearance. The largest inlets of the W. are Clew Bay, Killary harbour, Kilkieran Bay, Galway Bay, the mouth of the Shannon, Dingle Bay, the purity of the breeds raised. The mouth of Kenmare R, and Bantry Bay. From N, to S, are the country is divided into thirty-one

of rod and line-fishing in the rivers, and salmon and trout are caught in

large quantities.

About twenty - one species mammals that occur in Great Britain are unknown in I. The mole, weasel, adder, and pole-cat are unknown, and the only kind of reptile found is the lizard. The blue-hair is indigenous, and frogs and toads are very common. It is probable that I. was isolated before the complete European fauna was able to enter it from the E. The flora of the southern region includes some Pyrenean types that are not found in Great Britain.

The mineral produce of I. is small when compared with that of Great Britain. Coal is mmed near Lough Allen and at Coalisland in co. being raised from the Triassic beds Dublin (Trinity College) was incorporated in 1591, and is the most impyrites, and lead or are also produced. Other minerals are limestone, which is chiefly found in co. Roscommon, iron ore, sand, clay, National University of the total value of the market of the college bauxite, and green Connemara marble. The total value of the mineral produce raised in I. in 1908 was £217,056, the total value in the United Kingdom being £130,003,670.

Manufactures flourish chiefly in the N.E. of Ulster. The most important seat of the linen industry is Belfast, where it was introduced by Strafford in 1633. That town also employs over 10,000 men in its shipbuilding yards. The woollen industry, which was formerly in a very flourishkinds of agricultural produce, live

stock, fish, and linen.

Means of communication .- The first railway was opened in 1834, and ran between Dublin and Kingstown, a distance of 6 m. In 1910 the number of miles open and in operation was \$400. The chief railway companies are the Midland, Great Western, Great Southern and Western, Great Southern and Western, Great Northern, Belfast and Northern Counties, and the Dublin, place during the 6th century B.C., Wicklow, and Wexford. The canals and about three centuries later we are very important for purposes. The chief are ran between Dublin and Kingstown,

purposes. The chief are and Royal canals, 165 long respectively, which :

deep-sea and coast fisheries, and in 1905 over 6000 vessels were employed in the trade. Mackerel, hake, connects Lough Neagh with the herrings, soles, cod, lobsters, and Shanon. There are steamship lines oysters are among the fish caught between Dublin (Kingstown) and and sold. There is, too, a good deal of rod and line-shiping in the river.

The coasting trade is very active. Education .- The primary education is under the direction of the commissioners of national education. In 1909 there were 8401 primary schools, in which 679,235 children were enrolled. The amount expended from the rates during the year 1909-10 was £1,688,649. The primary schools were opened in 1831. Religious instruction is not compulsory. In the same year there were seven training schools with 1194 students. A Board of Intermediate Education controls the curriculum of secondary schools; it awards grants out of a fund set apart in 1878 out of the degrees to women. The other unversities are: Queen's at Belfast; the National University of I. at Dublin; the (Roman) Catholic University of I. at Dublin; the universities of Cork and Galway; the General Assembly's College, Belfast, and Magee College, Londonderry (both Presbyterian); and the Roman Catholic colleges at Maynooth, Blackrock, Clonliffe, Carlow, etc. History .- The earliest history of I.

evidence in any authors of note regarding I., and other evidences which restrictions imposed by the British parliament. Other industries are brewing and distilling, embroidering, pelled to rely upon the little evidence hand-lace work, and other home industries. The chief exports are all pened to rely upon the little evidence

'in', where all the distribution of the

'in', where all the evidence

peoples is to be found, and we find
that even after the Celtic settlement of I. great numbers of the earlier in-

is not unnaturally wrapped up in myth and legend. We have little

tribes. resemblance to the tribal names of the Celts in Britain, e.g. we find the name Brigantes in both countries. The division of the country into provinces—Ulster, Munster (E. and W.), Leinster, and Connaught—seems to have been a division made by the earliest Celtic settlers. By the be-ginning of the Christian era we may say that I. was populated by Celts (Goidels and Brythones), together with a sprinkling of the Neolithic people and some Piets, who probably came from Scotland, and who occupied but a small portion of I. Such is the explanation that history gives of the early settlement of I., the Irish, however, account for it in a very different way—a series of legendary stories, in which mythical characters, who have become almost historical, play an important part. The legendary stories which account for the settlement of I. are various, and can only be noticed here. The first invaders came under Partolan, occupied the island for 300 years, and were then killed off by a great They were followed plague. They were followed by the Nemedians, who came from Scythia and had a great struggle with the Fomorians. The Fomorians were ultimately successful and the Nemedians were driven out and went away to Greece. From hence, after various adventures they returned to I., this time being given the name of Firbolgs, and this tribe settled in I. and have been held to be represented down to the 16th century in I. itself. The next set of invaders were the tribes of the God Danu, who finally overthrew both the Firbolgs and the Fomorians. The tribes of the God Danu are supposed to have come originally from Greece but to have originally from Greece but to nave been driven up to Scandinavia. and from thence to have invaded I.; they held supreme command of I. down to the time of the arrival of the Milesians. The Milesians are supposed to have come originally from Scythia, to have sojourned in Egypt, and to have finally invaded I. and conquered it. This myth is the most invastant historically, of all that important, historically, of all that have been related, since the Milesians are held by historians down to the 16th century to have given the line of the high kings to I. down to the 12th century. Names are given to the carly kings and records of their deeds were kept, but of these we may take little or no notice until the appearance at the end of the 4th and be-chirefam, was introduced. The first annual of the 5th centuries of Nial of one, nor did it become organised the Nine Hostages. He is held to have before the arrival of Patrick. The finally set up the central kingdom of growth of Pelagianism in Britain had, Tara, and to have led expeditions of before the end of the 5th century, the Irish overseas. It has not yet made it necessary for Rome to send

These names bear a striking | been fully recognised to what an lance to the tribal names of extent I, and Wales were connected extent I. and Wales were connected during this early period, and it must be pointed out here that the expeditions of Niall of the Nine Hostages, synchronises with the departure of the Romans and the raids of the Piets and Scots into Britain. Certain it is that colonies of the Irish were formed in Wales and in W. Wales (Devon and Cornwall), and it is to this period in Irish history that we can best trace the foundation of these colonies.

The religion of early I. cannot be easily traced. The early inhabitants appear to have had many gods, in fact, to a certain degree, to have been Pantheistic; there is evidence also to Pantheistic; there is evidence also to show that they were fire worshippers, and we know that right up to the 15th century the sacred fire at Kildere was kept burning. The most tangible side of the early Irish belief, however, is their undoubted faith in the existence of fairies. The tribes of the God Danu are held, after the invasion by the Milesians to have discipled. vasion by the Milesians, to have disappeared into the hills and to have reappeared as fairies. We have also lists of the names of the Irish gods, but these gods seem to have been very shadowy beings concerning whom little is known. The priests or Druids of the country play an important part as teachers, prophets, and wizards. Their powers were great, and they were held to have been able to perform many miraculous things. One side of the belief of the Irish must not be overlooked here, since it survives for some very considerable time during the Christian period, and that is the idea that after death certain changes could be made by the dead person, and that he could appear now as a wolf, now as a fish, and again as a bird. Only certain people were held to have this power, but in one case at least it was held that the whole of the inhabitants of Ossory could change themselves into wolves at will. Before the arrival of St. Patrick (432) I. had probably been partially converted to Christianity. Of this there seems little doubt, nor do actual facts in any way contradict it. The relations between I. and Britain were very intimate. A British Christian church had certainly been founded long before this date, and the constant influx of British slaves and the continuous intercourse of the Irish and Britons make it certain that Christianity was introduced. But the

missionaries to stamp out the heresy, firm hold on the country that the and one of these missionaries, monastic system usually associated Palladius, was certainly sent to I. With I. was introduced. The earlier Christianity, however, whilst probably well known in the S., had made and to have led to considerable dislittle progress in the N. and W., hence order. Further, the Irish bishops did it was to these parts that Patr gave his own personal attention. himself, born in Britain, had be enslaved and had spent seven years that the number of Irish bishops in of early manhood amongst the Irish, existence was enormous. Each tuath, hence he was familiar with their language and customs (see PATRICK, ST.). He took with him at least two followers who spent their time in followers who spent their time in the S., organising the churches and spreading the Gospel. Patrick took for himself those parts which had been touched but little by the Christian faith. His success was great, but has probably been overrated; in any case he found great opposition, and he incorporated in the faith supporters precises which did not numberless practices which did not actually run counter to the doctrines of Christianity, and which had been accepted by the Irish in pre-Christian The system of society made it essential that he should convert the heads of the tribes before the faith was accepted by the tribes-people, and he was opposed by the 'ardri' (or 'ardrig') of I. Nevertheless he succeeded in establishing a system by which native Irishmen became priests and in turn converted their brethren. Schools and churches were erected, and the see of Armagh established. I. in this way became definitely con-nected with the Western Church, bishops were consecrated, the land divided into dioceses which probably coincided with tribal divisions, and the Church definitely established throughout the land. The Church was, however, to adopt a very different system to that set up by Patrick, during the centuries which followed. The Irish Church has to a very great extent been regarded as a monastic church, but this was certainly not the system set up by St. Patrick. The Church in I. for a time suffered a serious set back after the death of Patrick, but finally was established upon a basis which coordinated with that of the political system of the country. The Church system of the country. The Church was founded in practically a personal basis, religious colonies originating from one centre became and remained daughter settlements of the parent body. The head of a religious foundawas the possessor both spiritual and temporal rights, and frequently it came to pass that the headship of a religious foundation passed entirely into lay hands.

existence was enormous. Each tuath, or tribe, however, had a bishop who was recognised as an official member of the tribe, and who had a considerable amount of influence and power. Judged by the standards of Western Surger by the Sadurates of Western Europe the Church in I. was morally somewhat loose, but this was pro-bably as much due to the struggle between the old and new religions as to anything else. Findian was the to anything else. Findian was the founder of the famous monastery at Clonard. He had been in Britain, and there he had come under the influence of St. David and Gildas. Returning to I. in 520 he founded the monastery at Clonard which was the beginning of the foundation of that series of monasteries which made I. the centre learning for Western Europe. Scholars flocked to these monasteries. which were simply encampments of students, i.e. a series of mud huts built by the students themselves. Here they lived and provided them-selves with food by their own labour, and received also their learning in the open air. These monastic settlements were conducted on lines very much more severe than had been the earlier monastic settlements. The monks were shut off entirely from the laity, and the sexes were also separated. This monastic movement seems also to have been accompanied by a great missionary movement. Missionaries of the Celtic Church went everywhere—Columba to Iona, Aidan to North-umbria. Colombanus to Western umbria, Colombanus to Western Europe. In the Orkneys the Celtic Church was established, and Icelaud, when discovered by the Vikings, was found to have been visited previously by missionaries of the Celtic Church. The Irish missionaries soon found themselves in opposition to the missionaries of Rome. The chief points of difference were the method of tonsure and the method of the calculation of Easter. The Roman tonsure had probable the new test of the control of the test of the lation of the lation of the lation of the lation tonsure, which are the lation of calculating the lation of the lati mained true to the Jewish method, headship of a religious foundation passed entirely into lay hands.

The monastic system was early introduced into I. although it was introduced into I. although it was not until Christianity had gained a the 8th century that the church of

history of I. is a long story of relentless and practically uninterrupted The descendants of tribal warfare. Niall of the Nine Hostages remained ardri of I. down to the beginning of the 11th century, but were of the 11th century, but were seldom powerful enough to be able to maintain peace in the country. The Church was not strong enough to perform the work of the ardri, and nioreover, the personal character of church government made the Church often a party to the quarrels of the tribes. The descendants of Niall of the Nine Hostages, were Hy Niall. At the begin 6th century the Scots fro

made their settlement in anu ultimately, after struggles, obtained the comore or less united Sc SCOTLAND—Hist.). About of the same century for the same century

of the same century Tar with the be the residence of the ardri, many reigning dynasty Brian managed in legends being connected with the 1002 to become ardri himself, and desertion of this centre. It is implementation of the connected with the during the twelve remaining years of and that the attempt to rule Dalriada (Argyllshire) as a subject kingdom of the ardri of I., this attempt, however, was given up. The position of the ardri was unenviable. He could command no real allegiance save that of his own immediate tribe. The army of 1. consisted of the tribes com-The manded by their own chiefs. tribesmen owed allegiance to their chief only.

shadowy ty nothing. Further, the tribal army was a fighting machine upon which no reliance could be laid, since it existed

to the ardri

attacks on the coast, but by sailing

Iona gave in on the point. From the aided later by the Danes, made settle-4th to the 8th centuries the political ments on the E. coast. Although the Danes and the Norwegians later quarrelled amongst themselves, nevertheless the Irish tribal system prevented the organisation of any effective resistance. For over a century I. was dominated by Dubgaill (i.e. the black foreigners, the Danes), and the Twidgaill (the white foreigners, the Norwegians). This domination was not altogether evil for I., since it brought that country into closer contact with the countries of the Continent and with Western civilisation. Many of the Irish tribes fought in the armies of the Danes who invaded England, Foreign trade, especidivided into two great branches, the vaded England. Foreign trade, especi-southern Hy Niell and the northern ally with Scandinavia, flourished, and

ırm. Just h century the great ince, who ject race.

describe to give here an account of any chief events in Irish history since there are none to give. The records tice, he made good laws, and he tell us only of constant wars, constant successions, and short reigns. The tountry was in a state of anarchy.

One event alone need be mentioned, 1014 was fought the famous battle of out the the attempt to suppose the conditions of the problem of of th Clontarf, which broke again the power of the Danes, but at the end of which Brian himself was killed. The which Brian ninisen was ance. Indeath of Brian was a very serious blow to monarchy in I., and led to the weakening of the central power and the establishment of practical anarchy throughout the country. The history of I. from the battle of Clontarf to the Anglo-Norman invasion is the record of continual strife be-tween the O'Brians of Munster, the O'Neills of Ulster, and the O'Connors of Connaught for the ardriship of Ireland. The relations with England during this period were not intimate. remance could be faid, since it existed turing this period were not intimate, only for a short time, was unprepared but were, nevertheless, usually fairly for a long campaign, and was apt to cordial. The question of the Church melt away after having fought one in Ireland was one which perplexed sharp short battle. Such was the the English primates during the state of I. when the Vikings began a series of raids which developed into tween the Irish Church and Rome a settlement.

The Three Trish Church and Conformed to the Stharp trish Church had conformed to the series of Forms. This Newscience was the series of Forms. Dublin was recognized. century. The Norwegians were the usages of Rome. Dublin was regarded first to come, and, as in Eugland, the as an English diocese under Canterfirst attacks were mere plundering bury, and with this stepping-stone raids, during which, however, the the English primates had hoped to Vikings did not confine themselves to bury, and with this stepping-stone the English primates had hoped to subdue the whole island. The syno of Kells of 1152 divided the island up the rivers penetrated inland also. finally into dioceses, did much to The raids, however, quickly developed abolish the anarchic state of church into settlements, and the Norwegians, government which prevailed, and

made Armagh the seat of the primacy. The Irish had, between the 4th and 12th centuries, advanced but little as far as their social conditions were concerned. A species of feudalism had grown up, but the tribal system and the Brehon law remained still and the Breion law remained still with them. They were, however, about to fall under the influence of the Norman feudal system. When Henry II. succeeded to the English throne he had already planned the conquest of I. The only English pope who ever occupied the chair of St. Peter had given his sanction to the idea and had desired the accuracy as idea, and had desired the conquest as a means of bringing the Irish Church into closer contact with Rome. The expedition planned by Henry, however, did not take place, but later in the reign events caused Henry to again turn his attention to the question of I. In 1166 Dermot Macmurragh, exiled from I. because of his tyranny, and also because of the hatred he had roused by carrying off the wife of the chieftain of Breffni, arrived in Aquitaine and asked for help from Henry II. Henry II. was at that time too much occupied with other affairs to attend to Irish matters himself, but he gave Dermot permission to raise forces from amongst his march lords, and by their aid won back his possessions in He applied to Richard de Clare. I. He applied to Kichard de Clare, Earl of Pembroke (usually called Strongbow), and by promising him the hand of his daughter and the ultimate possession of his kingdom, induced that earl, whose fortunes were not at their highest level, to help him. Strongbow did not cross over to I. until 1170, but Fitz-Stephen and Fitz-Manyine crossed with a small and Fitz-Maurice crossed with a small company of men in 1169, and began the Anglo-Norman conquest of I.

It is impossible to follow here the failures of the first adventurers: suffice it to say that by their superior skill and their united efforts they restored Dermot and paved the way for the overlordship of Henry II., which that king established when he crossed over to I. in 1172. The kings of I. were forced to acknowledge Henry as their overlord, the country was placed under the administration of a Norman governor, the barons who had fought in I. were granted Irish lands, and the Church was brought by the synod of Cashel into complete union with the Church of Rome. The Irish were, however, allowed to retain their old Brehon law, and the Anglo-Normans were left to maintain themselves in their dominions as best they could. The history of I. for some time after this date is the record of continuous strife between the Norman harvost attention to acted their

power and the Irish attempting to retain their customs, laws, and system of civilisation. The conquered territory was known as the Pale, and the whole of I. was ruled nominally by a Norman governor. John was made lord of I. in 1185, but soon made himself as hated in I. as he was later in England. The real rulers of the land were the De Lacys, who had been granted huge territories by Henry II., and who, by subinfeudating their land, introduced into I. those great Norman families who have played such an important part in the history of that country. John's reign, however, English power increased as it did also during the reign of Henry III., especially under The Norman Richard Strongbow. The Norman families in the meantime began gradually that policy of intermarriage with the Irish which eventually made them 'more Irish than the Irish themselves.' The reign of Edward I. saw the power of the colonists still on the increase to such an extent that they were able to help Edward in his wars with Scotland, but although in Connaught and in Ulster the power of the English was still increasing, nevertheless the Celtic tribes were not yet utterly beaten, and remained in hiding and preparation in the mountains of I. During the reign of Edward II. Edward Bruce tried to conquer the island and to drive the English out, but after several futile engish out, but after severa future victories he was finally overcome and slain at the battle of Dundalk. The reign of Edward III. witnessed the passing of the Statute of Kilkenny, which forbade the intermarriage of the English and the Irish; it also saw the creation of the earldoms of Desmond and Ormond, which were added to the earldom already created, the earldom of Kildare. Richard II. led two expeditions to I., with both of which he did little good; the Celtic reaction was strong and was strengthened by the Anglo-Irish baronage. One of the main results of Richard's second Irish expedition was that he allowed time for the house of Lancaster to usurp his throne. The period of Lancastrian rule was one of extreme misery for I. Henry IV. could do little, Henry V. was too busly occupied elsewhere to turn his attention to I., whilst Henry VI.'s regents did very little indeed. Richard of Verleys wede a reconstruction of I. York was made governor of I. in 1449 for ten years. He ingratiated himself with all parties and became extremely popular. Edward IV.'s reign was remarkable for nothing save its lawless-ness and for the fact that Tiptoft of Worcester, a typical product of the renaissance, became governor of the barons attempting to extend their island and was responsible for much

bloodshed. espoused the cause of Lambert Simnel in 1487, but certain of the Irish, and in particular the town of Water-VII. was passed the famous Poyning's law, which gave control of the Irish legislature to the English council, and was responsible for much contention at a later date. Henry VIII. did not turn his attention to 1. until fairly late in his reign. By this time the Anglo-Irish families were Irish in almost every respect. They no longer acknowledged any law save that of the tribal system of ancient I. But the king struck with a heavy hand, the power of the house of Kildare was broken, and the country was slowly rescued from the hands of the feudal lords. Henry himself adopted the title of King of I., and the Irish were gradually brought to look

The reign of Edward VI. saw the beginning of the attempt to introduce Protestantism into I. The attempt s supwas a f ported The sincere · de was only too evident, and Mary had no difficulty in restoring the Catholic religion in I. at any rate; but the monastic lands which had been seized were not given back, and in fact Protestants from England found during Mary's short reign a place of refuge from persecution in Dublin. With the accession of Queen Elizabeth the state church was restored in I., and the Irish Church was made even more dependent upon the crown than was the Church in England, but than was the Church in England, out the great events in Irish history during the reign of Queen Elizabeth are the O'Neill and later the Geraldine rebellions. Shane O'Neill had been elected chieftain by his tribe and claimed the earldom of Tyrone, which had passed to a bastard brother, Brian O'Neill. The English supported the claim of Brian O'Neill, but Shane the claim of Brian O'Neill, but Shane was able to keep up a continual contest with the crown until finally, in 1567, he was killed.

The crushing of the Shane O'Neill rebellion was followed in I. by a great religious revival. The counter Reformation, which was doing so much to restore Catholicism on the Conworked with tremendous rapidity in I., influenced and helped

The Earl of Kildare of these rebellions, led by the great Earl Desmond, was only put down after four years continual struggle. The Irish were helped during this and in particular the town of Water-ford, were strong supporters of the rudors. During the reign of Henry and the Italians, and were crushed finally with great cruelty. The rebellion had been confined practically to Munster, which was finally quelled by huge confiscations and English settlements; amongst the settlers were the poet Spenser and the adven-turer Raleigh. The final rebellion during Queen Elizabeth's reign broke out in 1595 under O'Neill, Earl of Tyrone. Essex, sent to quell it, made terms with its leader and returned home; but Mountjoy, by means of a series of fortresses from which he ravaged and laid waste the land, finally conquered it (1603). Tyrone admitted defeat, and was allowed to keep his lands and title. The wars in I. had of a necessity been to the power of the crown for the re-dress of their grievances. The native English regarded the Irish as savages and also because I. was struggling for all that England held in greatest hate —Catholicism and the friendship of Spain. The atrocities of the time, equally ferocious on both sides, cannot be palliated, but are perhaps more easily understood. The system of plantations was developed during the reign of James I. The lands of the Earls of Tyrone and Tyronnel were confiscated, and Ulster was settled with Presbyterians chiefly, although lands were also granted to the city of London. I. seemed at this time to be the happy hunting-ground of all land-less adventurers. But the conquest of the reign of Elizabeth had at least been thorough, and no further re-bellions took place during the first Stuart reign. The administration of Strafford is the most important event of the early part of Charles I.'s reign. He promoted industry, law, and order; he restored the country to something approaching prosperity. but his order was the order of repression, his discipline the discipline of the iron hand. His worst and most unjust work was the attempts to 'settle 'Connaught, but ere he could carry out that work he was recalled to help Charles in England (1640). The great Irish rebellion broke out in 1641, inspired both by hatred of the rule of Strafford and by the fear of what would happen under Puritan rule.

It was known that the Puritan leaders were determined to repress Catholicism and the result was that immediately rebellion broke out. I., influenced and helped Even though the Elizabethan regreat extent by Jesuit bellions had been ferocious and to a very great extent by Jesuit bellions had been ferocious and priests. The immediate outcome of savage, for mere savagery the great this religious revival was the outbreak rebellion was worse. Undoubtedly of the Geraldine rebellions. The second thou ands of Protestants perished,

although in a number of cases the addition to allowing the Irish freefigures have been grossly exaggerated. The situation was complicated by the outbreak of Civil War in England, and the Irish sent some help to the king, who was continually intriguing with them. In 1649 the execution of the king released the parliamentary troops for service in L, where the young king, Charles II., had been immediately recognised. The methods of Cromwell and Ireton were thorough, and the Irish were crushed altogether. The garrisons of Wexford and Drogheda were massacred, and every priest that the Puritans found was indiscriminately slaughtered. Cromwell may have been sincere in believing that he was exacting but a just vengeance; it must, however, be owned that his methods were unnecessarily barbaric. The Cromwellian settle-ment followed, and huge tracts of land were confiscated. The only merits of Cromwellian rule were the restoration of order and the pros-perity which followed a peace of desolation. The Catholic religion was, however, sternly repressed. The Restoration involved the settling of another great land question. The Cromwellian settlement was to a great extent upset, the original owners were restored, and the Cromwellian settlers given compensation in Connaught. The Roman Catholicreligion was also given a certain amount of toleration, and for the greater part of the reign Ormonde ruled I. for the English king. The country was on the whole peaceful, but the trade re-strictions imposed were rapidly alienating the Irish people still further, and were the cause of considerable trouble at a later period.

The revolution of 1688 was the immediate sign for the outbreak of hostilities between the Catholics and Protestants of the north of I. Londonderry and Enniskillen were immediately besieged, and the Protestants found themselves hard set to hold their own. Londonderry was captured after a siege lasting 105 days, whilst the besieged in Enniskillen broke out and won a victory at Newtown Butler. In 1690 was fought the battle of the Boyne, after which James II. left the country and re-turned to France. William III. also returned to England, and the Irish patriot and rebellion was crushed by Churchill close connec (Duke of Marlborough), assisted by country and Ginkell, one of William's Dutch Ginkell, one of William's Dutch generals. Cork and Kinsale fell. Aughrim was won, and finally Sarsfield, after a magnificent defence, surrendered Limerick, and returned to France with his followers to found

dom to enlist in the service of France, promised toleration Catholics to the degree allowed during the reign of Charles II. But the Penal Code passed by a Protestant parliament refused to recognise this latter clause. The Penal Code was a series of vindictive anti-Catholic laws. The Catholics were refused all rights of citizenship, all ownership of property, and were altogether freated in a manner which cannot be condoned in any way. Apart from this, the government of I. passed into the hands of a Protestant oligarchy. The great landowners were never in the country, and their representatives treated the Irish peasantry with the utmost cruelty, parliament was in the hands of the great Protestant families, and the Church under the control of absentee and usually irreligious bis-The Irish people were downtrodden, their trade repressed, their land taken from them, thousands of them emigrated, and the pick of the Irish nation served the enemies of England, since England refused to use their services. The Irish had indeed become 'hewers of wood and drawers of water' to the Protestant Towards the end of the minority. century matters improved consider-ably. The Catholic repression was ably. lightened, and several concessions in the matter of ownership of land were These reforms were allowed them. the immediate outcome of the American War of Independence. I. must be better treated, or there was the possibility of her also breaking away. The great result of this war, however, was the granting of an independent parliament. The British troops had perforce been withdrawn from I, for service in America; French invasion seemed imminent. The Irish Protestant and Catholic alike formed a volunteer force to resist invasion. Then gradually they discovered their own power; practically under the threat of rebellion they obtained the repeal of Poyning's law, after trade restrictions had been withdrawn (1782). The leader of the movement which had brought this about was Henry Grattan, a strong believer in Catholic emancipation, no democrat, but a believer in strong, firm rule. patriot and a strong supporter of a close connection between the mother country and I. The next great movewas the Fre Catholic and

as the greatest blessing of the age. The United Irishmen were formed, Fitz-William promised that which he the famous Irish brigades. The could not fulfil—Catholic emancipa-capitulation of Limerick had, in tion—and finally the state of I. became

repressed and disarmed. Ulster underwent a brutal persecution at the hands of an armed force, but was finally disarmed. In 1796 the French invasion under Hoche had failed at Bantry Bay. In 1798 the Irish rebellion broke out. To a great extent it was a national rising. leaders held out for Catholic emancipation and parliamentary reform, the peasantry were fighting for separation from Great Britain. The battles of from Great Britain. The battles of New Ross and Vinegar Hill were the only two battles of importance, and both were defeats for the robels. The French landing was a failure, since it came too late, and Pitt saw that only union could end such anarchy. union was distrusted and disliked. It was only at enormous expense and after much bribery by means of honours that it was brought about Grattan spoke strongly against it. Grattan who had been ever a patriot and never a rebel. In 1800, however, the Act of Union was passed, and in 1801 it became law. The Irish were to be represented in parliament by twenty-eight Irish peers and four bishops, elected for life by the whole of the Irish peerage. One hundred members were to represent I. in the House of Commons. I. was to pay a certain amount to the British exchequer, was to be given absolute free trade with Great Britain, and was to keep her judicial and execu-tive systems. Pitt intended the tive systems. measure to be accompanied by a measure of Catholic emancipation, but the king (George III.) pleaded his coronation oath and refused to hear of it. Finally, rather than break a pledge, understood if not definitely given, Pitt resigned (1801). See con-

tinuation under GREAT BRITAIN.
Ireland, Church in, was founded, according to tradition, by St. Patrick, ce: *----

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came Columba and many saints and anchorites to convert the larger larger The Celtic Church eastern island. was, however, separated by its posi-tion from the churches of the Continent, where the dominion of the great Church was passed on the introduction of Mr. Gladstone. Before the Act was already becoming very great. Though it was in full communion with the rest of the Church Catholic, it differed from the general Western custom in many points, such as the then no doctrinal or disciplinary monastic tonsure and the date of changes of importance have been

anarchic. The United Irishmen were | Easter. After the Norman conquest of England, and the so-called conquest of Ireland which followed in Henry II.'s reign, a vigorous attempt was made to do away with the native Irish system, and bring the Irish into greater submission to the pope. But the distracted state of the country has never enabled it to produce any great churchmen. By the time of the Reformation the papal element was very strong in Ireland, and, moreover, the Irish were not very favourably disposed to the sister island. Hence the reformed doctrines were never well received among the Irish, though it may be noted that there was no such general exodus of prelates as there was in England. Whereas in there was in England. England fresh consecrations were needed for almost every see, hardly any were required in Ireland. though the continuity of the present Church of Ireland with the pre-Reformation Church is thus established, it has for centuries been the church of only a section of the people. of whom by far the larger portion remained under papal jurisdiction. The first convocation of the Irish clergy was held in the reign of James I., the Irish articles being drawn up in 1615. These were accepted by the Irish Church in 1634. The distinctly Calvinistic tone of these is indicative of the way in which the Church of Ireland has always inclined more in the direction of the advanced reformers than has the Church of Eng-During the 17th century its most important prelates were John Bramhall, archbishop of Armagh, Jeremy Taylor, bishop of Down, and William King, bishop of Derry. The Act of Union of 1800 linked the Churches of England and Ireland into the 'United Church of England and Ireland,' but the progress of the reformed doctrines made no progress. who has always been regarded as the The injustice, therefore, of having an patron saint of the country, in the 5th Established Church which held the certain a small raction of -- a small fraction of

continually WAS movement for the vileges of the Irish 1 to take effect. In Temporalities Act

Irish Church was one of the most 1833 the Church Temporalities Act flourishing in Christendom. From it abolished two of the four Irish archives. bishoprics and eight of the eighteen bishoprics, and four yearslater certain grievances with regard to tithes were Finally, in 1869, a Bill removed. for the disestablishment of the Irish

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men that the results of disestablishhave been almost entirely beneficial. The Disestablished Church has about 1500 clergy, and nearly 600,000 adherents. See Mant's Hist. of the Church of Ireland, 1840; Lee's Irish Episcopal Succession; Olden's Church of Ireland, 1892.

Ireland, Alexander (1810 - 94). British author and journalist, born at Edinburgh. His early years were spent in business unconnected with literature, but in 1846 he succeeded Mr. (afterwards Sir) Edward Watkin as publisher and manager of the Manchester Examiner. Among his friends L numbered Carlyle, Emerson, Leigh Hunt, and Robert Chambers. He was the author of Ralph Waldo His Life, Genius, and 1882; Recollections of Writings. George Dawson and his lectures in The Manchester in 1846-47, 1882; The Book-Lover's Enchiridion (6th ed.), 1890, his best-known work.

Ireland, Mrs. Annie (d. 1893), the second wife of Alex. I. (q.v.), was the sister of Henry Alleyne Nicholson. She wrote a biography of Jane Welsh Carlyle, 1891; edited her correspondence with Miss Jewsbury (1892). Her James recollections of Anthony Froude were published posthumously

in the Contemporary Review.

Ireland, William Henry (1777-1835). a forger, inherited the interest of his father, Samuel I., author, in the works of Shakespeare; but unfortunately in him it took the form of inrenting documents concerning the poet, and imitating his handwriting and signature. The forgeries were so well executed that they deceived, not only Samuel I., but such men as Dr. Parr, Sir Isaac Heard, Dr. Warton.

Rowena and ascribed to

ier was produced by Sheridan at Drury Lane in March 1796. In the meantime, however, suspicion had been aroused, and which town his estates were situated. Malone exposed the fraud, which *

perpetrator acknowledged in Authentic Account, 1796. This subsequently (1805) expanded into his Confessions. In later years he wrote many novels and romances of considerable merit.

Ireland Island, see BERMUDAS.

Irenæus, St. (c. 120-202), Bishop of Lyons at the end of the 2nd century, seems to have been a native of Smyrna, Asia Minor. In early youth he seems to have been connected with Polycarp. He was a priest of the church at Lyons under Pothinus, its bishop, upon whose martyrdom, in 177, in the persecutions of Marcus Aurelius, I. succeeded to the bishopric, which he | Office.

made. It is generally felt by church- held for twenty-five years. He spent great labour upon missionary efforts among the Pagan Gauls, but he is best known for his attempts to mediate between the bishop of Rome and the Christian churches in Asia Minor, in their dispute about the proper day for the celebration of Easter, and for his opposition to the Gnostics and the Valentinians. The account of his martyrdom under Severus is not found before the writings of Gregory of Tours and is probably a mistake. Of his writings only a few fragments of the Adversus Hæreses, in the original Greek, and a barbarous Latin translation of it, are all that are extant. See editions of his works by Erasmus (1526), Stieren (1851-53), Harvey (1857), and in Clark's Ante-Nicene Library.

Irene: 1. (c. 752-802) A Byzantine empress. She was a poor but beautiempress. She was a poor but beautiful and talented orphan, a native of Athens, whom Leo IV., East Roman emperor, married in 769. On the death of Leo (780) she ruled over the empire, her son, Constantine VII, being only ten years of age. She restored the orthodox image worship, for which deed the war are received by for which deed she was canonised by the Greek Church after her death. When Constantine grew up he tried to free himself of her autocratic sway. and in 790 was proclaimed sole ruler by the soldiers. Two years later the empress conspired against her son, and had his eyes put out. tried to arrange a marriage between herself and Charlemagne. In 802 she was banished by the patricians to was banished by the patricians to Lesbos, Nicephorus, her treasurer, being placed on the throne. 2. A Roman goddess of Peace, according to Hesiod, a daughter of Zeus and Themis. She was worshipped at Rome and at Athens.

Ireton, Henry (1611-51), took an active part in the Civil War, on the outbreak of which, in 1842, he was nominated captain of a troop of horse to be raised at Nottingham, near

tion of Charles I. In 1649 he went to Ireland as Cromwell's deputy, and rendered yeoman service to his party. He died of fever when besigging Limerick,

Iriarte, Tomas (1750-91), a Spanish poet, born at Orotava in Teneriffe. He began his literary career by the translation of French plays, publishing his first original comedy, Hacer que hacemos, in 1770. In 1771 he que hacemos, in 1770. In 1771 he became official translator in the foreign office at Madrid, and in 1776 keeper of the records in the War Office. A dull didactic poem, La

Musica, 1780 (Eng. trans., 1807) inspired by Haydn was much admired. but his fame rests mainly on his Fabulas Literarias, 1782 (Eng. trans., 1806), two of which, The Donkey Flautist and The Dancing Bear, are especially celebrated. See Emilio Colarelo y Mori, Monograph, 1897.

Iridacem, a natural order of mono-

cotyledonous plants, consisting nearly 1000 species, which flourish in temperate and tropical lands. They are usually herbaceous plants of such beauty as to justify their cultivation for ornament alone. The flowers are hermaphrodite, with a petaloid perianth in two whorls of three, united at the base to form a tube: there are three stamens, and the inferior ovary consists of three united carpels, divided into three loculi containing numerous ovules; the fruit is a capsule. The Iris and Crocus are representatives of the predominant northern form of this order, as the Gladiolus, Freesia, and Ixia are of the southern.

Iridescence, the name given to the delicately-tinted, lustrous sheen found on mother-of-pearl and other finely-grooved surfaces, as well as on the wings of certain insects. It is due to the interference of waves of white light reflected from the different

levels of the grooving.

Iridium, one of the metals of the platinum group. I. occurs as an alloy of platinum, and also of osmium in the Urals, Brazil, and elsewhere. It is fusible only with difficulty, extremely insoluble (in the massive form it is not attacked by aqua regia). and separable from its allied elements only with difficulty. The best method for its preparation is that devised by St. Claire Deville and Debray. This consists in fusing osmiridium with zine, distilling off the latter so as to leave a porous mass. This is powlered, mixed with barium nitrate, and gnited. The osmium is converted nto barium osmate, and the I. into its oxide. On boiling with nitric acid he osmium is volatilised as trovide, while the I. is obtained

"litten from which the double minor chloride can be prepared. !: .. e" : nition, gives I. in a spongy Frm which, on fusion with lead and ' with nitrie acid,

I. is used for

anting gott pen-nibs, and for aking standard measures. Its comunds resemble those of platinum

Iriga, a tn. of the prov. of Ambos marines, Luzon, Philippine Is., on Buhi R. The chief products are Indian corn, sugar, pepper, Bao, cotton, tobacco, copra, and bd woods. Pop. (1903) 19,297.

Iris. one of the larger of the asteroids, planatoids, or minor planets. a group of small planetary bodies between Mars and Jupiter, first discovered in 1801-2. See Astenorps.

Iris, the chief genus of Iridacee, and

well-known species are known popularly by the names of fleurs-de-lis, flowers-de-luce, and flags. Although over 100 species occur in N. lands, only I. Pseudacorus, the yellow flag, and I. fætidissima, the gladwyn or blue I., are to be found in Britain. I. Florentina, the Florentine I., is a native of S. Europe, and the islands of the Mediterranean: its rhizome has an aromatic odour like that of violets, and is known as orris-root.

Iris, in Greek mythology, was the daughter of Thaumas and Electra. and the sister of the Harpies. In the Iliad she is mentioned as the messenger of the gods, but the office is given to Hermes in the Odyssey. In earlier writers she is mentioned as a virgin goddess with wings of gold, but later writers make her the wife of Zephyrus, and the mother of Eros. She was especially considered the messenger of Hera and Zeus, and is depicted with a herald's wand, and a pitcher in her hand. In Greek the word 'iris' denotes 'a rainbow,' of which she is generally considered the personification.

Irish Moss, see CARRAGEEN Moss. Irish Sea, the sea which hes be-tween the N. of England, and the N. of Ireland, connected with the Atlantic on the N. by the N. Channel, the and on the S. by St. George's Channel. The greatest breadth (between Morecambe Bay, Lancashire, and Dundalk Bay, Louth) is 150 m.; the greatest length is about 110 m. Within its boundaries are the Isles of Man. Anglesca, and Holyhead.

Irish Terrier, a rather large dog, varying in weight from 17 to 25 lbs.; with a hard, rough, and wry coat, without any tendency to curl. Its usual colour is a bright reddishbrown, but varies through different shades of brown. Its head should be long and rather narrow; the ears small, filbert-shaped, and lying close to the head; the eyes small and hazel, and the nose black; the legs straight and strong with round thick feet : chest narrow with deep brisket, and back straight and strong; the tail, if not cut, should curve. The I. T. is not cut, should curve. The I. T. is quite a modern breed, dating from about 1870; it is much valued for itaffection and pluck, and its enthusiasm for chasing anything and everything.

Irish Times, the largest and most influential penny daily paper in Ire-land. It is essentially the anti-Home anti-Catholic. and Rule. loyalist newspaper of Ireland, a character swhich it has preserved from its foundation in 1859 by Major Lawrence Knox. It has special correspondents in England, and in all parts of Europe and A i.a., and possesses a private vire irom London to Dublin. Published in Dublin, as is the Weekly Irish Times, and Evening Times, owned by the same proprietors, makes a special control, makes a special geature of prospectus advertisements. Purchased in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the fibrous subvexued in 1873 by Mr. (afterwards by exudation into the selection of the selection into the se

frish Wolthound, supposed to be the oldest breed of dog in the United Kingdom, but the original breed in reality has died out, and information concerning it is only obtainable by tradition, although

e been made to enjoyed a great strength and

their courage in attacking wolves. In appearance, they seem to have been of two kinds, one resembling a grey-hound, and the other a mastiff. The modern I. W. is the result of the endeavours of Captain Graham of Dursley, Gloucestershire, to reproduce the old breed, but there is no positive proof that it does so. They are t

Dane men of cro

syphilis,

strain with a dash of Siberian wolf strain, with a Russian wolfhound. The points of this modern breed as required by the Irish Wolfhound Club standard, are: General appearance not quite so massive as the Great Dane, but more so than the deerhound, the largest hunting dogs in hound, the largest numbing dogs in existence, with minimum height of 31 in. and weight of 120 lbs. (bitches 28 in. and 90 lbs.); head long and narrow, muzzle long and moderately pointed and ears small, and grey-hound-like in carriage; neck long, very strong and muscular, well arched without develor; chest year deep and without dewlap; chest very deep and breast wide; back moderately long; loins arched; belly well drawn up; tail long and slightly curved, of moderate thickness and well covered with hair; shoulders muscular and sloping; elbows well under; muscular thighs with second thigh long and strong, and hocks well let down: feet moderately large and round with toes well arched; hair rough and hard on body; any colour that appears in the deerhound but black is rare. See James Watson, The Dog Book, 1906.

Iritis, inflammation of the eye, in particular of called the iricornea and to sociated turbance,

cornea or of the sclerotic or choroid coats; it is sometimes symptomatic of meningitis; or may be caused by actual injury or infection from foreign bodies or by chill. The symptoms are pain, especially at night, disturbance or occlusion of vision accompanied by a dread of light and the shedding of The physiological copious tears. changes include an excess of blood at the beginning of the attack, followed by exudation into the fibrous substance of the iris, possible adhesions to the lens or collections of pus between the lens and the iris. Inflammation of the ciliary body is a frequent complication. The attack may become chronic, or it may take on a recurrent form; in severe cases permanent tissue changes may take place, leading to serious impairment of vision. The treatment depends on of vision. The treatment depends on the nature and severity of the attack. Generally, rest for the eye is of prime importance; the eye should be shaded, and no occupation requiring its constant use should be permitted; the patient should not, for instance, read at all. Pain may be alleviated by hot fomentations or the administration of cocaine. Operations involving the cutting away of part of the iris are called for in some cases. It has been found that adhesions may be treated with success by the use of electrolytic: method.

Irkutsk: 1. A gov. of Eastern Siberia, Asiatic Russia, bounded by Yeniseisk on the W., Yakutsk on the N., Lake Baikal and Transbaikalia on the E., and Mongolia on the S. The country is of a mountainous character, with a general elevation of about 1500 ft., traversed by the loftier chains of the Kitoi and Tunkun in the S., the Sayan Mts. from S. to Northern Siberia to the N. A great plateau of Northern Siberia to the N. A great part of the area is given up to agriculture, rye, wheat, barley, oats, and potatoes being cultivated and cattle bred, but the S.E. portion is largely forest land. The most important river is the Angara (1000 m.), connecting Lake Baikal and the Yenisck Coal, iron, salt, fire-clay, and granite are found, but are little worked. Fishing in Lake Baikal and trapping for furs are the chief industries outside agriculture. The climate is severe and carthquakes common in the neighbourhood of Lake Baikal. The it habitants are mostly Russian Buriats, and Tunguses. The tothef towns are Irkutsk, Balaganst Kirensk, and Verkholensk. 2. Car

of Eastern Siberia, the seat of il

on the Angara R. and on the Trans-Siberian Railway, 40 m. N. of the S. extremity of Lake Baikal and S. extremity of have bounds when the first street of the town was almost destroyed by fire in 1879, and has been rebuilt on a remarkably fine plan. It has many fine buildings, a few factories, and a summortant of the street of the first street of the str gold refinery, and is an important commercial post and the centre of the tea trade. Pop. 108,060.

Irlam, an eccles, par, and vil. of Eccles (q.v.), S. Lancashire, England, 71 m. S.W. of Manchester, at the iunction of the Mersey and the Manchester Ship Canal. Pop. (1911) 6309.

Irmin and Irmin Pillars, in Teutonic mythology, a god of the old Germanic tribes of the Herminones. The huge wooden posts called Irmin Pillars were raised in his honour and worshipped by the heathen Saxons during their wars with the Christianian Cauls. The chief the Irminsal, de-772. stroyed 'Irmin's cient name for the Great Bear.

(sometimes called the 'Lucerna juris'), an Italian jurist, born at Bologna early in the 12th century. He founded a school at Bologna, and at the instance of the Countess Matilda directed his own and his pupil's attention to Institutes and Code of Justinian. appears to have held some office under Henry V. after 1116, and to have under the Emperor Lothair died before 1140. He is generally considered the first of the Glossators, and the author of an epitome of the of Justinian called Novella the by Authentica. See Monograph Vecchio, 1869; and Savigny's Gesch. d. röm. Rechts im Mittelatter, vol. iii. (2nd ed.), 1840-50.

Age. Archæologists have Iron divided prehistoric times into three the Stone, periods of. culture: Bronze, and Iron ages. These ages do not, of course, succeed each other all

in this codes ain areas of οf countries till iron in 15 remote re the metal is is marked

of iron for weapons and utensils of every-day use. In the East the knowledge of iron appears to have been more ancient than eisewhere; tion. The links between the actual Exppt, in spite of her high state of tion. The links between the actual experiment of its actual than the desired the countries she than that of Hallstatt. La Tène (the the countries she than that of Hallstatt. La Tène (the than that of Hallstatt.) bronze, long after the countries she than that of Hallstatt. La Tène (the traded with had attained the full great depths) is the name of a site,

governor-general, and an archiepis-knowledge of iron. Iron is, however, copal see of the Greek Church, lies mentioned in a funeral text in 3400 B.c., and some pieces of iron have been found, so while copper was extensively mined in the peninsula of Sinai and bronze used both for weapons and ornaments, we find (at present) no important traces of the use of iron till 1500 B.C. Assyria, it is believed, knew the metal long before the people of the Mediter-ranean, their ancient tribute lists show their appreciation of iron. In the 9th and 8th centuries B.C. we find large quantities used by Asiatic nations, and a much smaller amount in the layers of ancient Europe. Assuming that the Homeric poems refer to a stage of civilisation about 1200 B.C., it is important to notice that iron is not the metal used for weapons, but bronze, and this has been proved by the recent finds on the sites of Troy, Tiryns, Mycenæ, and Knossus. The first known type of the I. A. of Europe is the Hallstatt type. Near Hallstatt, a place in Upper Austria, was found a famous Celtic burial-ground. The excavations here revealed an entirely new form of culture, called by archeologists 'Hallstatt,' implying a transition stage from the bronze to the I. A. Previous excavations had shown the immediate change from bronze to iron, Hallstatt shows the gradual growth in the use of the metal. Professor Ridgeway expresses his belief that the use of iron originated in the Hallstatt area and spread thence over Europe and down through the Ægean to Egypt and Asia. The most famous iron mines of antiquity were at Noricum, less than 40 m. distant from Hallstatt. The Hallstatt graves yielded swords, daggers, javelins, spears, helmets, axes, shields, and various forms of jewellery, also amber and glass beads; silver was apparently not known. Most of the weapons were of iron, only a few being of bronze. were fashioned The swords cutting, not thrusting, with curved hilts unlike those of the Bronze Age. The Hallstatt culture appears to be that of the Homeric Acheans. seems probable that the brooch was invented in Central Europe some considerable time before 1350 s.c., and that the early I. A. of Hallstatt must have originated long before that At Villanova in Italy, in an ancient cemetery near Bologna, excavations have also shown iron gradually superseding bronze: the culture of Villa-nova is part of the Hallstatt civilisathe excavations were carried out. This culture, about 500 B.C., appears to be a succeeding phase to the Hallstatt period. The finds were swords of iron, spear-heads, axes, knives, scythes, brooches, bronze kettles, belts, pins, etc. This culture is also known as the Late Celtic. The I. A. of the Scandinavians is still a matter of dispute, some authorities placing it about 500 B.c., others a hundred years later. The cemeteries on the island of Bornholm contained graves which yielded iron brooches and buckles, but better finds were obtained from the bogs and fields of Denmark, in the shape of chariots overlaid with bronze and massive ornaments of iron and bronze, etc. The influence of La Tène is seen clearly in, this northern culture. Weapons were seldom found in graves, but at Vimose in Funen 3500 objects were discovered apparently. objects were discovered, apparently the débris of a battle-field. The Viking Age from 800 to the 10th century is famous for the beauty and perfection of its metal work. Iron ore was extracted, smelted, and extensively worked; the swords, knives, battleaxes, and helmets are often decorated with silver of remarkable beauty. The invasion of the Brythoons and the Belgæ gave the British Isles the Late Celtic culture, largely influenced by La Tène, with its fantastic treatment of plants and animals and a free use of the geometrical device and some skill in enamelling. example of a bronze and enamelled shield found in the Thames near Battersea, date about 10 B.C., now Battersea, date about 10 B.C., now in the British Museum, gives some idea of the skill and artistic merit of their metal work. In 1886 an important discovery was made at Aylesford, Kent, when a pit-burial was unearthed. It contained among other things a pail, flagon, skillet, and three brooches, all of bronze. The handle of the pail is of iron plated with bronze and is movable; the palmette decorations show that the palmette decorations show that it is evidently a copy from a classical model and affords evidence of close intercourse with the Continent. Other finds have assisted to establish the continental parentage of the art of the early I. A. of Britain. See W. Ridgeway, The Early Age of Greece; Lord Avebury, Prehistoric See Greece; Lord Avebury, Prehistoric Times; the British Museum Guide to the Antiquities of the Early Iron Age; M. Hoernes, Primilive Man, trans. n Dent's Temple Primers.

once a lake dwelling, near the village of Marin in Switzerland. Interesting to discoveries were made here, and like the Hallstatt the culture of 'La Tène' takes its name from the place where the excavations were carried out. This culture, about 500 B.C., appears to be a succeeding phase to the Hallstatt period. The finds were swords of iron, spear-heads, axes, knives, exythes, brooches, bronze kettles, belts, pins, etc. This culture is also known as the Late Celtic. The I. A. of the Scandinavians is still a matter of dispute, some authorities placing it about 500 B.C., others a hundred years later. The cemeteries on the island of Bornholm contained graves which yielded iron brooches and buckles, but better finds were obtained from the bogs and fields of Denmark, in the shape of chariots the Bronze Age, because the manufacture of La Tène is seen

Iron possesses several qualities, which tend to show that it is the most remarkable element known to man. It is the most tenacious of all the ductile metals at ordinary temperatures, excepting nickel and cobalt; it softens at a red heat, and may be easily welded at a white heat, above which, however, it becomes brittle, but the magnetic property is the most curious and useful, for without this we should not have the electricity which rules the world to-day. It is a point well worth noticing, that a population that needs iron is set in a place where it

can be easily obtained.

Sources of iron.—Iron is an element which is very chemically active, and it is due to the fact that its exidising properties are so marked, that it is only rarely found native except as meteorites. There are five important iron ores from which to-day we extract our yearly consumption of about \$0,000,000 to 100,000,000

viesford, Kent, when a pit-burial tons as unearthed. It contained among her things a pail, flagon, skillet, read three brooches, all of bronze, he handle of the pail is of iron atcd with bronze and is movable; he palmette decorations show that is evidently a copy from a classical tercourse with the Continent, ther finds have assisted to establish the early I. A. of Britain. See the early I. A. of Britain. See T. Ridgeway, The Early Age of the art in the British Museum Guide to the British Museum Guide to the British Museum Guide to the Antiquities of the Early Iron Age; Hoernes, Primitive Man, trans. Dent's Temple Primers.

Iron and Steel. Iron (symbol Fe,

is used first in the production of sulphuric acid, then of copper, and finally the iron is made use of.

these ores themselves are. never found in a pure state, but mechanically mixed with quartz-limestone and clay, which impurities are collectively termed 'the gangue.' It is the extraction of the iron from the gangue with which we are next concerned.

Extraction of iron.—The iron blast furnace is a crude but very efficient piece of apparatus, consisting of an enormous shaft usually about 80 ft. high and some 20 ft. wide at the belly. It is full at all times of a mixture of fuel, ore, and limestone in solid lumps, which are charged through the top. The mass slowly descends as the fuel gets burnt away by the 'blast,' or hot air blown through the 'tuyeres' near the bottom, and the iron itself melted and by its greater weight falls to the bottom, whilst the earth of the ores, the gangue, and the limestone unite to form a complex form of slag, floating on top of the molten metal. The gases of the blast roughly consist of nitrogen and carbonic oxide. In their rapid rush up the furnace they deoxidise the iron. On its downward path the metal saturates itself with carbon from the fuel up to about 3.5 to 4 per cent. This is an in-dispensable part of the process, because it is only through this that the iron can be made fusible enough to melt at any temperature, which it is possible to generate in the furnace. and only when molten can the metal be separated from the slag. addition to the duties already men-tioned, the fuel has the further one of desulphuring the metal by transferring the sulphur to the calcium of the gangue. The limestone is there: (1) in order to make a slag which can be rendered fluid several feet above the hearth; (2) to make it fluid enough to run out of the appointed hole; (3) to provide enough lime to take up the sulphur. molten metal at the bottom of the furnace is at intervals drawn off by opening a clay bung in the base, and is allowed to run into sand moulds; the result is known as 'pig-iron.'

Cast iron.—These pigs are nearly always remelted before the article of commerce known as cast iron

even of iron covered with a suitable refractory material. The next group is produced in exactly similar fashion. with the addition that the moulds are cooled rapidly in such a way that only the outside shell of the metal is affected. ing only

Ιn order castings a brand of iron is used with a low melting-point, and the castings so made are subjected to further treatment either: (1) the casting containing, say. 3 per cent. carbon, is packed into hematite and heated until decarbonised so that the remaining carbon is about 0.2 per cent., or (2) the outer shell only is decarbonised in a somewhat similar way, free earbon being deposited in the interior of the mass. This latter type is known as 'Blackheart' and is the product of Leys at Derby, who have adopted this name as their

trade-mark. Steel and wrought iron.—The other great iron products are two in number and go by the name of steel and wrought iron. They are both produced from pig iron by what is known as a conversion process, and it is very difficult to draw an exact line of demarcation between wrought iron and low carbon steel.

The difference between cast iron and wrought iron is largely chemical. The cast iron contains more carbon. silicon, and phosphorus than is suitable or, indeed, permissible in the latter. Hence the great object of conversion processes is to remove these The carbon excesses by oxidation. volatilises off as carbonic oxide; and the others, e.g. silica and phosphorous pentoxide, unite with any oxidising agent that may have been introduced to form a slag. Another foreign body, which is the hardest to remove, is sulphur. Its exact final constituent sulphur. Its exact final constituent is hard to determine, but may be taken as being a combination of calcium sulphide and manganous sulphide, which gets absorbed into the slag. whence it escapes in a gaseous form as sulphur dioxide.

In the puddling process east iron is converted into a low carbon, slagbearing mass by means of iron oxide. which is slowly stirred into the molten metal, as it lies in a shallow bath or hearth. The oxidation is carried out precisely as described above. of commerce known as east from precisely as described above. The can be produced. Such eastings are lower the mass of carbon in the iron of three types: (1) Grey; (2) chilled; the higher becomes the melting-times is usually made by remelting point, so that as the molten metal ings is usually made by remelting point, so that as the molten metal ings is usually made by remelting point, so that as the molten metal ings is usually made by remelting point, so that as the molten metal ings is usually made by remelting point, so that as the molten metal ings is usually made by remelting point, so that as the molten metal ings is usually made by remelting the higher becomes the molting-point, so that as the molten metal ings is usually made by remelting the higher becomes the molting-point, so that as the molten metal ings is usually made by remelting point, so that as the molten metal ings is usually made by remelting the higher becomes the molting-point, so that as the molten metal ings is usually made by remelting the higher becomes the molting-point, so that as the molten metal ings is usually made by remelting the higher becomes the molting-point, so that as the molten metal ings is usually made by remelting the higher becomes the molting-point, so that as the molten metal ings is usually metal by a transfer by the higher becomes the molting-point, so that as the molten metal ings is usually metal by a transfer by the higher becomes the molting-point point as the higher becomes the molten flower by the higher becomes the molting-point point as the higher becomes the molten flower becomes the molting-point point as the higher becomes the molten flower beco of hammering.

The mechanical differences hetween cast and wrought iron are worthy of notice. Cast iron is weak in tension and strong in compression, but is extremely brittle, and has no ductility. Wrought iron, on the contrary, ductile. is not brittle, but is most

Steel.—From wrought iron to steel is but a step, but before continuing the account it may prove advisable to give a few definitions of the various kinds of steels which have been on the market from the time when it was first discovered that iron could take an edge. Steel may either be of plastic origin, i.e. formed by treating the cast iron, described above, in furnaces, so burning off the high carbon, or it may be made by a fluid process. Taking the latter, the more usual method of manufacture, it may be defined thus: Steel is iron, nearly pure or alloyed with other elements, which has been cast in the fluid condition, and is capable of being worked (hammered, rolled, pressed, stamped or drawn) after heating into merchant

Nomenclature of steels: (a) Blister steel .- Cemented, converted, or blister-bar, made from pure Swedish iron (see 'Huntsman' or crucible process). (b) Shear steel, made by breaking up the brittle blister bars, heated and hammered to add toughness and then called 'plated bars.' These are piled and clamped together and heated to a welding heat with a flux of sand and fluorspar, and then drawn to a rectangular shape and rolled into a solid mass. This is called 'single shear steel, as from this type of steel the Clothiers' Company had shears made. The process is one of considerable antiquity. 'Double shear steel' is the result of bending single shear steel on itself, rewelding, and finally re-rolling. (c) Tilted steel, which is obsolete, is made from becoming

PROCESSES OF MAKING STEEL. These are all steels of plastic origin; we have now to consider the various processes of making steel by lique-faction of the iron. Till quite recently there have been three great processes: (i.) The ' Huntsman ' or crucible process. (ii.) The Bessemer or basic process. (iii.) The Siemens-Martin or acid process. To this list must be added the use of the electric furnace as employed largely in Norway and the U.S.A., and to some extent in this

Siemen's scrap.

country and on the Continent.
(i.) 'Huntsman' or crucible pro-

rapidly expelled under the influence crucible process; these steels include all sorts of machine shop tools for cutting operations, as well as files and razors. The source of all such steels is Swedish iron, which is the ore magnetite, and from this country has come for 200 years the material which is the base of our best cutting tools. This black ore is found very pure and in large veins in the mines at Perseberg and Dannemora. The resultant steel has to be low both in phosphorus and in sulphur, or it is useless to withstand shock, and partly owing to nature and partly to treatment Swedish iron possesses this

property.

The first group of operations on the ore is performed in Sweden: Calcination is carried out in stoves heated by blast-furnace gas, during which operation the sulphur is eliminated as sulphur dioxide. This renders the heavy ore quite porous; the more porous it is the easier the further re-Weathering .- The porous duction. ore is placed out of doors exposed to the action of wind and rain, to wash out any remaining sulphur as a soluble sulphate. Smelting.—This operation is performed in the blast furnace, charcoal being used as the fuel, and the resultant pig is free from silver and phosphorus. The flux used consists of lime, reduced from some form of calcium carbonate. in order to remove the silica and alumina. This so happens by the fusion of the three into a gangue, which is really a double silicate of calcium and aluminium. Then finally the usual action takes place between the oxygen and the carbon monoxide of the gas, leading in the end to the following equation for the reduction following equation for the reduction of the iron, viz. Fe₂O₄+4CO=3Fe₄+4CO₂. The resulting iron is in a spongy condition, and gets fused together and melts, but so do the earthy matters in the flux; so that whilst the Fe is falling to the bottom it takes up from 5 per cent, to 6 per cent. of impurities, chiefly carbon. The end of this stage is known as pig iron, of which there are three chief varieties .

attences.			
	Analy	sis	
	Grey	Mottled	White
	9/	%	%
Combined-			,,,
Carbon	•4	2	3.6
Graphite	3.6	2	•4
Silicon	1	•5	•9

The combined-carbon has the formula Fe₂C, containing 6.67 per cent. carbon.

The next stage is the reduction of cess.—Modern steels which are required for working at high speeds are containing from 99.5-99.7 per cent. made chiefly by the 'Huntsman or iron. The first, the 'Walloon,' probon, sulphur, and phosphorus. This leaves a sponge at the bottom composed of iron slag intimately mixed, which is taken out of the furnace and hammered into a square bloom weighing some 70 lbs.; the effect of the hammering being to press out the slag. This done the blooms are further hammered into 3-ft. bars for export. The 'Lancashire Hearth' is the same process on a larger scale, but 'Walloon' iron is much more valuable owing to the probability of the occlusion of oxygen in the former.

A change can now be observed in the mechanical properties: (1) The metal is elastic. (2) The elongation on a 2-in, specimen is up to 40 per cent. of its length. The reduction of area on a 1 sq. in. specimen is up to 70 per cent. of its area. (3) The mechanical stress is as high as 20 tons per sq. in.

The next stage is the manufacture of steel from the Swedish iron. The iron is converted to steel by the 'Cementation process.' This process carburises the iron to any desired extent, and is done in what is known as the 'dry way,' because the iron never gets more than plastic, i.e. its temperature never exceeds 1100° C. this carried out in firestone crucibles which hold from 12 to 50 tons per chest, of which there are two per crucible. Charcoal is packed in alternate layers with the iron, and this must be done in the absence of air: the whole is then covered with a roof of 'Wheelswarf,' a mixture of silicon and steel filings; this does not, on the average, expand, but if it does the steel is ruined. The amount of carbon present will depend on the time the process goes on. Fourteen days are allowed for cooling and the result is 'Blister steel,' since it comes out brittle and covered with blisters, having gone in tough and smooth.

The carbon meeting the slag reduces the oxides of iron and silica with the evolution of carbon dioxide, which blows the bubbles. This is a test of genuineness. There is to be found on the market Irish Blister steel with no blisters: this has probably been made from Siemens or Bessemer scrap and is no good. The blister bar is then cast into an ingot. This is a peculiarly difficult process and requires great skill. The amount in a crucible is generally about 56 lbs.; so some 60 lbs. containing about 1 per cent. C. are taken and rendered iluid in e

furnace:

Before te bottomed, and until that is done we can have no indication that it is clearmelted. Moulds are generally 3 ft. by

cess is by far the older and cruder. The 3 in. by 3 in. If the steel were poured in impurities pass off as exides of car-straight, it would boil over the top of bon, sulphur, and phosphorus. This the mould and form a bonnet, and on the mould and form a bonnet, and on sawing longitudinally through the ingot it would be found to be honeycombed and useless.

> General classification of carbon steels. Percentage of

(1) (2)	1) :08 2) :21	Structural steels, e.g. boilers, girders, axles, etc.		
(3) (4) (5)	·38 ·59 ·74	Holding down bolts.		

(6)·89 Chisels. 1.20 Turning tools.

1.47 Files, razors, etc. Foreign particles are frequently classed as slag inclusions; this is entirely wrong, because the slag is really a silicate, and foreign matter is evidence of careless manufacture. bulk of it is not slag at all, but sulphide of manganese, a natural and unavoidable constituent. The amount present should be expressed in percentage by volume, and not in percent; ge by weight: an approximation being got by multiplying the percentage of sulphur by weight by 5. Therefore we might get '05 sulphur by weight gives '25 sulphide of manganese by volume. Manganese sulphide is dove grey and rolls out with the steel; slag is dark and has some sort of struc-ture; manganeso sulphide has none. Further, it is innecuous, for if there be no manganese in the steel we get FeS, a yellow-brown substance which is very dangerous to the steel because it is fluid at a red heat.

(ii.) The Bessemer or converier process .- This was first conceived in a paper read before the British Association in 1856 by Sir H. Bessemer. Sydney Thomas and Gilchrist in 1878 improved on the furnace by lining it with a base (q.v.), e.g. powdered magnesia, limestone mixed with anhydrous tar. See Bessemer Process.

(iii.) The Siemens-Martin or acid process.—About 1868 Sir William Siemens and Messrs. Martin in France worked at a method for producing steel from pig iron, scrap, and ore in an open hearth, to which heat was applied by gas combustion. The first trouble with which they had to contend was that of finding a suitable roof to withstand the heat of the molten metal. In its most elementary form the furnace consists of a large open hearth, containing at its ent of

: the ·· passed 1 have gases

compartments, one for gas, one for air, and two being heated up. At intervals of twenty minutes during a melt the gas and air are switched off so as to pass through the hot ones. This fact adds considerably to the considerably to the efficiency of the operation. For every ton of steel produced some 6½ cwts. of coal is required, whereas in the older furnaces 8 to 11 cwt. was not an uncommon figure. It is called the acid, process from the fact that incommon figure. It is called the a 'acid' process from the fact that anhydrous silicic acid is used as the base lining of the furnace. It may described as the pig-scrap-ore process. The pig varies from 20 per cent. to 80 per cent, according to the cent. to 80 per cent. according to one required composition of the steel, a very fair average being 50 per cent. of each. The melt should be started with the furnace having a good hot bottom, and a smooth, well burnt-in hearth. When molten, a solid oxide of iron (Fe₂O₂) is added till the mass boils. Two points need careful attention: (1) the temperature must be high, about 1750° C. (3362° F.); (2) there must be enough basic slag (Fe₂O₃). For example, if the slag corresponds to 48 per cent. silica. the bath boils briskly, but if the slag corresponds to 58 per cent. silica, the bath will never boil. Suppose the steel when cast is to contain 0.2 per cent. carbon, then ore should not be added till the slag thickers, and slag should be added as long as possible before tapping, otherwise there will be too much oxygen occluded in the steel. The percentage of carbon present is estimated from time to time by 'the Eggertz colour test.' In this rapid test a specimen is taken from the boiling bath and quenched in water; a certain quantity is dissolved in dilute nitric acid, and then the colour of the liquor is compared to that obtained from a known sample similarly dissolved. Finally, the steel must be killed as

in the Huntsman process, either by ferro-manganese, or by the addition of not more than 0.01 per cent. of pure aluminium. When the bath is pure aluminium. When the bath is ready for tapping, the clay-silica bung is knocked out, and the mass run into the ladle, and the utmost care must be taken to see that no metal is left be taken to see that no metal is left in the bung-hole, otherwise, when the new charge is started, there will be a sudden outbreak, and all the charge may get lost. In modern works the ladle is drawn away by a locomotive to the casting pit which is generally situated in a different

finding their way through them to in which the carbon is not more than the stack during an earlier part of the 0.2 per cent., but open-learth steel of melt. Thus there should be found high carbon content is used for axles. tires, guns, armour-plate, and steel castings, so that we must here consider the manufacture of such pro-

There are, broadly speaking, three principal methods of making steels, varying from 0.25 to 1.2 per cent. carbon in the open-hearth: (1) Charge with pig and scrap, and tap as soon as the metal is sufficiently decarburised; (2) work the charge down to dead-mild, i.e. less than 0.2 per cent., and then recarburise with pig iron; (3) recarburise outside, by adding powdered carbon to the mass in the ladle. Of these processes number ii. is known as 'pigging-back.' Equally with the Bessemer process, the Siemens method can be used as a basic method, by lining the bath with dolomite. But it has been found that the acid process produces a safer more coherent-steel than the basic process. In favour of the basic pro-cess, however, must be put the fact that high-phosphorous scrap and pig can be used; and this can be obtained at a lower price than the best selected scrap, which is used in the acid process.

Comparison of Siemens-Martin and Bessemer processes .- Quality is the first consideration and here the openhearth process scores over the converter, because the operations are more under control, as samples can be taken at any period; and there is far less danger of over-oxidation. Exact carbon percentage is more easily obtained by the Siemens process. The open-hearth yields, on an average, 96 per cent. of the charge as steel, whilst the converter only averages about 85 per cent. The acid-Siemens is the most expensive, due to the need for selecting the pig and scrap so carefully. But, in order to compare the two processes, we must take into consideration local conditions. First, as to supply of raw materials; and secondly, as to type of output required. Conditions tend to show that the basic-Siemens will be the process of the future, as there are several deposits which have the phosphorus too high for use in an acid

process. (iv.) Electric steels.—There are three distinct types of electric furnaces which are now commercially employed in the production of steel, although at present their chief use is either to melt up special scrap so as to motive to the casting pit which is produce high-class steels, or to assist generally situated in a different building.

So far we have only considered the making of a dead-mild steel, or one Resistance; (3) Are Furnaces.

(1) As a specimen of type 1 we will | contact, but as the charge melts an consider the Kjellin furnace, which was invented in 1899, and is probably the most successful type of induction furnace. In outline, the metal to be melted forms the completely shortcircuited secondary of a transformer. From the beginning of the operation with a new furnace, the process is somewhat as follows: Firstly, rings are placed in the bath welded to the size of Swedish iron. Secondly, the magnesite basic lining of the crucible or bath is rammed tight home; more cast rings of white Swedish iron, some 3 in. by ; in. in section, are placed in position. Thirdly, the current is switched on and the rings melt. Then the first charge is put in and two-thirds of this is taken out when melted, and is thrown away. Similarly a second charge is used and wasted; of the remaining one-third left in the bath a careful analysis is taken, as it plays in future the part of the rings, which were used Finally, the p, and the in the first operation. furnace is charged up, and the requisite slag is added, in order to prevent oxidisation; this slag is usually a double silicate of lime and alumina. As regards the chemical composition of the finished steel, this has to be obtained by careful adjustment of the various grades charged into the furnace. Various modifications of the Kjellin furnace have been devised, but they nearly all depend on the same principle.

The Röching-Rodenhauser furnace one that combines a shorted secondary with a resistance, which forms an alternative secondary path. this circuit being made through an actual winding on the links of the actual winding on the histories transformer connected by a path of refractory material. The short-circuited path is, generally speaking, shaped like a figure eight, thus pro-

viding a larger area in the centre.
(2) The arc-resistance furnace.—In ful current by a portion of the charge. In the Hérault type of such furnaces a current of 4000 ampères at about 110 volts is employed, the charge amounting to about 3 tons. The heat is regulated by raising or lowering the from open-hearth furnaces, both acid electrodes. In actual working the and basic, from small converters, proceeding is roughly as follows; from crucibles, and from the electric Lime and iron ore any placed in the furnace. For general foundry work furnace bottom, and then miscellane- a small open-hearth is the best, and ous scrap, etc., in order to bring it in the making of castings care must up to the level of the electrodes. The be taken that the bath is 'dead-current is then switched on, and melted,' i.e. there must be no free passes between the charge and the oxide in the slag, otherwise the cast-electrodes; at first, before the iron lings will be spongy. Fluorspar added is melted, they are usually in direct to the metal in the ladle is said to

arc is established between each of the electrodes and the molten metal. thus absorbing a large portion of the The rest of the procedure energy. follows closely on the lines of the open-hearth process, till the current is switched off at the end of the melt.

(3) The arc furnace. - In this type the heat is directly derived from the arc, the electrodes not touching the molten metal at all. Radiation from the sides and roof cause a great deal of trouble in repairs and renewals in this type, but in the Stassaus furnace good work is being done in preparthe ing steel castings from miscellaneous scrap; half-way through the operation the slag is changed, a basic slag being added sufficient to desulphurise and dephosphorise the charge. General conclusions on electric steels.

-Under proper conditions the sul-phur and phosphorus can be more completely removed in these furnaces than in any other process; a slightly oxidising slag combined with high basicity is sufficient to climinate entirely the latter, and to reduce the sulphur down to 0.04 per cent. It the slag could at that point be made basic but non-oxidising it would be possible to remove the sulphur as In the Hérault furnace it is found that the high temperature produced is sufficient to melt a nonoxidising slag, so that the phosphorus and sulphur are reduced to mere traces. The present position of such steels compared to that of other processes may be put thus: Firstly, the best kind of steel can be produced from cold scrap, or by refining molten open-hearth or Bessemer steel, as cheaply as in crucibles; secondly, the castings produced are much superior to crucible steel castings; thirdly, where special quality stuff is required. which could only be made from very special scrap in the ordinary way, then it can be produced more cheaply (2) The arc-resistance jurnace.—In then it can be produced more cheaply this type of furnace the larger portion by using inferior material in the of the heat is generated by an electric Bessemer or Slemens process, finally are, the smaller portion being formed reflaing in any of the well-known by the resistance offered to a power-makes of furnaces; fourthly, with electrical energy at its present price in Great Britain, it cannot possibly combemadecasily

g processes.

e can be made

average about 0.35 per cent. carbon, and the sulphur and phosphorus should be low. Moulds play an important part, they are divided into two classes—the green-sand and the dry-sand: the former being used for light rough castings and the latter for heavy ones. The green-sand mould is a generic term for those which have not been dried previous to the molten metal being poured in. They are usually made of common foundry sand mixed with loam. Dry-sand moulds are made as above, but they are faced with moulders' composition and give a smooth clean skin. When cast the steel will be found to be more or less brittle, and this must be removed by annealing; the casting is heated up to about 850° C. and allowed to cool over a long period. The effect is to toughen the casting by removing internal strains, i.e. the elongation and contraction are increased, and the maximum stress is decreased.

For Quenching, Tempering, Hardening, and Case-Hardening, see separate

articles.

Influence of certain elements on steel.—Up to the present we have considered our steels merely of carbon and ir with a few necessary

sulphur, and phosphorus,

If aluminium be added in larger

springs; also for armour plates and by Profs. J. O. Arnold and A. H. projectiles. Read in May 1912.

Manganese.—A steel containing large quantities of manganese may present several curious phenomena. If the addition is limited from 2.75 per cent. to 7 per cent., the metal is brittle and worthless, but between 7 per cent. and 20 per cent., what is, to all intents and purposes, a new metal, is obtained. In the cast state it is so hard as to be practically impossible to machine; but in the forged condition whilst still possessing great hardness, a very considerable elonga-tion coupled with great tensile strength is obtained. Another pro-

give good results. Castings, as a rule, following treatment. On being average about 0.35 per cent. carbon, quenched from 900° C. it becomes soft and tough, the latter property increasing with the temperature and the suddenness of quenching. Hardness is restored by heating to a full

red and cooling. Nickel.—The addition of nickel may be made up to 30 per cent, with, on the whole, good results. Up to 20 per cent. the tensile strength and elastic limit rise enormously, whilst the elongation and reduction of area do not suffer, compared to those properties of ordinary mild steel. Nickel-chrome steel is largely used on the Continent for manufacturing

large guns.

Tantalum and Titanium are only used at present to a very slight extent, though the latter element has been used in America for rails, and is

supposed to add largely to their life. Tungsten, or Wolfram, is used large quantities for conferring hardness to tools (see sub-section on High speed steels), and for permanent magnets to a slightly lesser degree. In the latter the addition of the special element is kept down between 5 and 6 per cent.

Vanadium is a curious element to

producing sound ingots, to which must be added the few impurities which cannot be wholly extracted with steel, but it seems to form at Such are manganese, aluminium, to deal with in the case of heat-treatment. Its mechanical strength is cerquantities up to 5 per cent. its effect tainly enormous, but when added will be detrimental to the steel. It does not add to the elasticity, nor to the rigidity, and certainly spoils the welding property.

The mean larger them. Is the meaning a trength is certainly spoils in the common to the temperature from which quenching must take place is too near the fusion point to be of use. When combined also with the common table is too the common to be of use. When combined also with the common table is too the common table in the common table in

powerful to resist alternating. The most recent work on this has been contributed to the l of the Iron and Steel Institute

High speed steels.—At the Paris Exhibition of 1900 the whole of the engineering world was startled by the sight of a lathe tool working with its nose at a dull red heat. Before this date it had always been supposed that such a high temperature would quite destroy the temper of the tool, but the exhibit was the precursor of a great revolution in the manufacture of tool steels, and this has largely been brought about by the introduction of special ferro-alloys, combined tion coupled with great tensile with more accurate knowledge of strength is obtained. Another property is that it is practically unmagnetisable; and lastly, it can be softened and then re-hardened by the was one containing about 1.25 per

cent. carbon, which is well above the and is noted for its hard bark, durable saturation point. But about that wood, and the gum which it exudes. saturation point. But about that period Mushet invented his self-hardening steel, which required no quenching, and no tempering. The secret of this steel was the inclusion of tungsten, which has the facility of retaining the carbon as hardenite up to the temperature of 500° C. The composition would then be about carbon, 2 per cent.; manganese, 2 per cent.; tungsten, 5 to 10 per cent.. and low sulphur and phosphorus. The steels were further fortified by the addition of 1 per cent. of chromium, and could cut medium hard steel at the rate of about 26 ft. per minute. The Taylor-White process added to the tungsten and chromium, raising them to 8 per cent. and 4 per cent. respectively, but they further claimed that the heat treatment had all the world to do with their product, alleging that between certain temperatures the metal deteriorated, but that above this limit the alloy picked up and finally ended by being better than ever. Such steels had a cutting rate of 60 ft. per minute. Modern high speed steels drop the carbon down below the saturation point, a good average being 0.65 per cent.; the chromium is kept at 3 per cent. in this country, though in U.S.A. it is raised to 7 per cent.; the tungsten is raised to 7 per per cent., whilst the silicon and man-ganese are kent down to ganese are kept down to under 0.2 per cent. Such a steel has the power of cutting medium hard steel at the rate of 100 ft. per minute.

The process of manufacture differs considerably from that of the earlier cutting steels, where it was a matter of great moment not to get them burnt. Now the great trouble is to get the temperature high enough with-out melting the steel. The materials are melted in crucibles up to 50 lbs. in content, and when east the ingot is so hard that it has to be heated for from twenty-four to fifty hours at about 800° C, before it is ready for forgin . ished

forged annealed again at a temperature of 800° C., and once more forged to shape after being heated to 1000° C. then ground to the exact shape, and is ready for hardening, which is done by heating the nose until it begins to melt; from which temperature it is cooled in the air blast or quenched in oil from what time the temperature has fallen to 900° C.

Ironbark-tree, а popular name applied to several species of Eucalyptus for a very obvious reason. E. resinifera, the red-gum tree, receives

wood, and the gum which it exudes. Iron Cross, a Prussian order originally instituted in 1813 by for distin-Frederick William III. for distinguished services in war. The decoration consists of a Maltese cross of iron edged with silver. The grand cross of double the size is presented to the victor at a decisive battle. The order was revived by William I. on July 19, 1870, just before the outbreak of the Franco-Prussian War.

Iron Gates, a narrow passage, in-terrupted by rapids and rocky shoals in the course of the R. Danube below Orsova (Hungary). In 1890-96 the Hungarian government, at a cost of £800,000, succeeded in rendering the channel navigable by blasting and

canalising. Iron Mask, The Man in the, a mysterious figure of great romantic interest in French history. He was a political prisoner in the reign of Louis XIV., who, when travelling from one prison to another, always wore a mask. He finally died in the Bastille in 1703. He was a well-built man of more than average height, with musical tastes, and spoke French with a slight foreign accent. He was always most carefully guarded, and the mystery of his identity still remains an historical problem.

Etienne du Junca (d 1706), lieutenant of the Bastille, recorded in his official journals that on Sept. 18, 1698, Saint-Mars, the new governor, arrived at the prison from the Isles Ste. Marguérite, bringing with him in a litter a prisoner whom he had formerly held in custody at Pignerol. This prisoner always were a black velvet mask, and his name was never told. He died on Nov. 19, 1703, and was buried in the parish cemetery of Saint Paul, his name being registered as 'M. de Marchiel.' The name actually recorded in the register was Marchioly.'

Stories spread about the prisoner even during his lifetime, and in 1745-46 it was asserted in Mémoires Secrets pour servir à l'Histoire de Perse that he was the Duke of Ver-mandois, the illegitimate son of Louis XIV. and Mile. de la Vallière, and was imprisoned for life for having assaulted the grand dauphin. Public interest was further aroused under the head 'Ana' in Questions sur l'encyclopédie, asserted that the 'Mask' was a bastard elder brother of Louis XIV, and the son of Anne of Austria and Cardinal Mazarin. the name most often; it attains a of Austria and Cardinal Mazarin. height of 150 to 200 ft. in Australia, Voltaire. who had twice been im76

prisoned in the Bastille (1717 and triguing with his master must surely 1726) and had conversed with De Bernaville, the successor of Saint-Mars, hinted that he could have told more had he wished. Abbé Soulavie, in Mémoires de Marchal Richelieu, made out a case for a twin brother of Louis XIV., but this theory is historically untrue, though it appealed to Grimm, Zschokke, Fournier, and

others. A much more feasible conjecture is that the 'Mask' was Count Mattioli, a minister of the Duke of Mantua (b. 1640). He negotiated with Louis for the surrender of Casale, but the French king, discovering that his dealings were treacherous, had him kidnapped (1679) and conveyed to Pignerol. But there was no secrecy about Mattioli's imprisonment, and it appears more than probable that it appears more than protection Mattholi died at Pignerol in 1694. Consult a letter by Heiss to the Journal Encyclopédique, 1770; Louis Dutens, 1: 1789; Rou

toriques su Fer, 1801; . au Masque au

Topin, L'homme au Masque de Per, 1870: Th. Jung, La Vérilé sur le Masque de Fer, 1873; and Barnes, The Man of the Mask, 1908.

The mysterious prisoner has also identified with Eustache Dauger, imprisoned at Pignerol in July 1669. He was kept very closely. Saint-Mars, the governor, was ordered to threaten him with death if he talked of anything but his food and personal needs. Tales soon spread about the prisoner who told his guardian that he was obliged to tell

'contes jaunes pour me : d'eux.' In 1675 Dauger was i wait upon another prisoner, F as valet, and on Fouquet's in 1680, Dauger and La another valet, were taken by Mars to Exiles, where one died in 1687. What evidence there is all goes to prove that the valet who died was La Rivière. In 1687 the remaining prisoner was transferred to the Bastille, every precaution being taken to guard him closely. There is no actual mention of the mask being used in Saint-Mars' correspondence with Louvois, but it was not an unusual thing for prisoners to be so disguised. Mr. Andrew Lang, in The Valet's Tragedy (1903), identified this Roux de Marsilly, a Huguenot intriguer in England. The French ambassador, Colbert, contrived to get Martin to go to France, where he might be arrested, in June 1669. Dauger was arrested in July. But, on the other hand, Martin if invicinity. Pop. (1910) 12,821.

have been a Protestant, whereas Dauger was a Roman Catholic. It is no actual proof that because Dauger was employed as a valet in prison that he was a valet formerly. Barnes (The Man of the Mask, 1908) found Mr. Lang's theory untenable, and suggested that Dauger was really James de la Cloche, the natural son of Charles II., whom he in turn identifies with Pregnani, who was sent by Louis to negotiate with Charles in 1669. Mr. Lang proved subsequently that James de la Cloche was identical with 'Prince' James Stuardo, who died in August 1669 at Naples. As well as the state of th works already mentioned, consult the correspondence between Saint-Mars and Louvois published in Delort's Histoire de la détention des philosophes, 1829.

Iron Mountain, a cap. of Dickinson co., Michigan, U.S.A., 46 m. N.W. of Escanaba. Has extensive iron mines which produce large quantities of first-class ore. Pop. (1910) 9216.
Ironsides, a nickname given to a

man, particularly a soldier, who displayed great bravery. Edmund II., King of England, appears to have been the first in English history to receive the name. It was applied to Cromwell, and later to his cavalry, those 'God-fearing men,' whom he trained to iron discipline. They were the chief means of the parliamentary victories in the field.

Ironton, a cap. of Lawrence co... Ohio, U.S.A., on the Ohio R., 140 m. S.E. of Cincinnatti. It occupies a central position in a productive mineral district, abounding in iron and hituminous coal. It has iron

lronville, an econo. par. shire and Nottinghamshire, England, 3 m. S.E. of Alfreton. Has collicries and iron works. Pop. (1911) 3000.

Ironwood, the name given to the wood of many different trees on account of its hardness and durability, and is applied to various plants in different countries. A good timber-tree of India is Mesua ferrea, the Nagas or I., and is a species of Guttifere. Siderorulon incrme, a

Irony (Fr. ironic, Lat. ironica, square on a white ground. The Gk. εἰρωτεία, dissimulation), a form of ridicule in which statements, apparently accepted, are held up to scorn, saying one thing and meaning anot results of the same person on different people and even in the same person on different days.

Irrational Numbers, see SURDS.

Irrawaddy, see IRAWADI.

may be found the Jews, King? (John xix. 14). Socrates used this mode of speech and raised it to a philosophical fine art. Among English writers Swift holds the palm

for abundant and apt examples of I. Iroquois, the name given by the French to one of the great confederations of the N. American Indians. The league was originally composed of five tribes, the Mohawks, Oneidas, Onondagoes, Senecas, and Cayugas, called the 'Five Nations' and probably dating from the 16th century. In 1715 the Tuscaroras were admitted to the league, which was henceforth known as the 'Six Nations.' They were undoubtedly the strongest confederation of Indians in N. America. and numbered, at that time, about 11,650 of whom 2150 were picked warriors. Their original home seems to have been round the upper reaches of the river St. Lawrence, from which they moved south-westwards round the shores of Lakes Ontario, Huron, and Erie, and occupying the greater part of Upper Canada, the whole of New York State, and a large part of Pennsylvania, Ohio, and Michigan, while a section of them moving S. through Virginia and Tennessee to the Carolinas, was cut off from the main body by the hostile Algonquin tribes in Maryland and W. Virginia. The league was strong enough, not only to hold its own against such hostile tribes as the Hurons and Eries, but to extend their dominion Erics, but to extend their dominion over the Mohicans, the Nanticokes, Shawnees, Mississaugies, and other Algonquin tribes. In the border warfare with the French, the I. always sided with the English, while their bitter enemies, the Algonquins, fought for the French; they also foughtfor the English in the American War of Independence. They now c

Irrawaddy, see IRAWADI. Irredenta, an Italian patriotic and political society which was particularly active immediately after 1878. when it had for its avowed object the liberation from foreign rule of all territories now outside the boundaries of Italy, in which, it was claimed (some-times wrongly), the Italian tongue is spoken universally, i.e. S. Tyrol Trieste. (Trentino) Görz, İstria, Tessino, Nice, Corsica, Malta. became of little importance after the French occupation of Tunis in 1881 when Italy formed the Triple Alliance

with Germany and Austria.

Irrigation (Lat. in and rigare, to water) is the artificial application of water to land, as contrasted with watering by manual labour, the object in both cases being the increased fertility of the soil. When the rainfall of a district is regular and sufficient, there is no need for the practice, and where the rainfall is too abundant the opposite operation of drainage is necessary. Many districts in all parts of the world, however, have a scanty and irregular rainfall, and that the idea of supplementing and husbanding this by artificial means is not a new one is proved by the great antiquity of many I. works in India, Egypt, and China. Until the natural overflow of the Nile was used by cultivators to saturate the soil, Egypt must have been practically a desert. No trace of scientific I. is found in the sculptures and paintings of ancient Egypt, but in works of as early a date as 2000 B.C. the practice of baling up the water is represented. This method, undoubtedly the most primitive form of I., is still followed in many places in India. Among the simpler forms of water-raising machinery the following may be mentioned. A pole with a bucket at one end of a crossbeam and a counterpoise at the other (known in India as a 'denkli,' or 'paccottalı,' in Egypt as a 'shadot') is largely used in the Nile district. Another apparatus War of Independence. They now number about 17,000 (or, including a 'denkli,' or 'paecottal,' in Egypt the allied Cherokees, 40,000) scattered as a 'shadof') is largely used in the throughout reservations in Canada. Nile district. Another apparatus New York, Indian Territory, and Wisconsin. They have made contouring the strings between two men, who thus ball up the water. A rude water. bale up the water. A rude waterwheel, consisting of earthen pots on c an endless chain which runs round the wheel, is termed a 'sakya' in Egypt, and a 'harak' in Northern objects of a very bright colour are; India. By means of this a pair of seen on a dark ground they appear oxen can raise water as far as 18 ft., larger than they really are. This and keep from 5 to 12 acres irrigated, phenomenon is called I. Thus a The 'churras' of India is a large white square on a black ground seems leather bag, suspended to a rope larger than an exactly equal black which passes over a pulley and is

raised by a pair of bullocks which go | districts in consequence had a preup and down a slope equal in length to the depth of the well. I. which is effected by means of canals naturally depends on the discharge of the river in connection. When the river varies very much in volume, being very low in the dry season and flooded in the wet, a complete control of the water is necessary for the engineers, and the canal is therefore very costly. Such is the system on the Cuttack Canal, in connection with the Mahanadi R. The canals of Lombardy, on the other hand, are much less costly, as there is no great variation in the rivers on which the canals depend, the Ticino and Adda, owing to the restraining influence of Lakes Maggiore and Como. Thus the lakes of central Africa serve a somewhat similar purpose for the Nile system of I. The canal system of Northern India is the best in the world, and contains works of hydraulic engineering unequalled in any country. In the S. of India I. is always required for the rice and sugar-cane crops, though maize and millet can be grown without any such aid. Generally speaking, the other districts of India can manage without I. in good years. The periodical occurrence, about once every decade, of very severe drought, however, renders it (though not from a financial point of view) worth while to construct canals and irrigating works in order that assistance may be given when famine comes. In Sind 80 per cent. of the cultivable area is irrigated, and in the North-West Provinces 32 per cent. The Ganges Canal has a length of 445 m., and by means of extension and branches serves, among other places. Cawnpore, Aligarh. Etawah. Among the other canals of India may be mentioned the Eastern Jumna Canal and the Agra Canal. In many parts of the United States I. is now carried on, as in Utah, Southern California, Kansas, Arizona, In Egypt I. works have been carried out on a very large scale; the delta formed by joining Cairo, Rosetta, and Damietta is intersected by many channels, and much benefit has resulted. The great dam at Assouan, for the purpose of accumulating the Nile waters into a lake, will also have a very beneficial effect. The masonry dam at Alicante on the Monegre R. dates from 1759, and is said to have a capacity of 130,000,000 cubic ft. of water. In Italy, Spain, and in the S. of France, I. is extensively carried Experience has shown that for successful I., a thorough system of drainage in conjunction therewith is a necessity. This principle was overlooked at first in modern works, and shown by growing roots, which the complete saturation of some said to be positively hydrotropic.

judicial effect on their fertility. It is surmised that the Romans first introduced I. into this country, though it was little practised till the beginning of the 19th century. Generally speaking the water used in I. not only supplies the moisture so necessary for vegetation, but fertilises the soil by furnishing such mineral constituents as salts of potash and soda, sulphates of lime, soluble silica, etc. In proportion as the water is rich in these, the effect on the soil is similar to that produced by a dressing of bone-manure. Sewage water is unquestionably even more valuable for irrigating purposes than ordinary water, owing to the large amount of vegetable putrefied animal and matter contained therein. The drainage of many towns is thus turned to a profitable use at the present time. Various systems of I. are used to suit the special requirements of the case, one of the following being generally used in England: (1) Bedwork I.; this is the most effective system, but is also the most costly. (2) Catchwork I., in which the same water is used many times. (3) Subterraneous I., in which the water is drawn up through the soil to the surface. This is applicable only to level surfaces. (4) Warping I., in which the water is allowed to stand on the land until it has deposited the mud, etc., contained in it. The proper management of water-meadows requires great care and skill. There must be neither too much nor too little must be neither too much nor too little water; the flow must be regulated with exactitude, etc., etc. See W. Willcocks, Egyptian Irrigation, 1898; King's Irrigation and Drainage, 1899; H. M. Wilson, Manual of Irrigation, 1893; Buckley, Irrigation Works in India, 1905; Sir C. C. Scott Moncriefl, Irrigation in Southern Eurone. Irrigation inSouthern Europe, 1868; etc Irritability in Plants, or Sensitiveness, is the manner in which they respond to the action of external forces such as (1) gravity, (2) light, (3) mechanical contact or pressure, (4)

moisture, etc. Response to gravity is known as geotropism, and to light, heliotropism; and members are positively or negatively geotropic or heliotropic according as they grow towards or away from the force. Thus roots are negatively heliotropic and positively geotropic, and shoots are just the reverse. Instances of irritability to contact are the leaves of the sensitive plant and sundew; the stamen of Berberis, and the lobes of the stigma of the musk, which close together when touched. sponse to presence of moisture is shown by growing roots, which are Irsina, a tn. of Italy, formerly sonal advent of Jesus Christ.

Pop. 7600.

Irthlingborough, a par. and vil. in Northamptonshire, England, on the R. Nen, and 2 m. N.W. of Higham Ferrers. Ιt has large ironstone quarries, and manufactures of boots and shoes. Pop. (1911) 4630.

Irtisch, or Irtysh, a riv. of Siberia, and a trib. of the Ob or Obi. It rises in the Alfei 1852 in the Altai Mts. of China, flows N.W. through Lake Zaisan, and joins the Ob 180 m. N. of Tobolsk. navigable during about eight months in the year for some 2000 m. Length 2500 m.

a tribe, numbering in all Irulas. about 86,000, dwelling in the Nilgiri hills, Arcot, the forests of S. India, and other places in the vicinity.

Irun, a tn. in the N.E. of Spain, in the prov. of Guipúzcoa, on the l. b. of the Bidassoa. It is a garrison town and the most important custom-house in Spain. There are hot

springs, iron mines, and Pop. 10,000.

Irvine: 1. A par., royal burgh, and seapo on th incres

the academy, a town hall, a statue to Burns, and is the birthplace of James Montgomery, the poet, and John Galt, the novelist. Elizabeth Buchan founded here her religious sect, the Buchanites, in 1779. I. exports iron, coal, and chemicals. There are engineering works, steam saw-mills, tanneries, iron and brass foundries. Pop. (1911) 10,180. 2. A riv. in Ayrshire, Scotland, which rises on the borders of Lanarkshire, flows W., dividing the districts of Cunningham and Kyle, and emptying itself into

the Firth of Clyde. Length, 30 m. Irving, Edward (1792-1834), a Scottish divine, born at Annan, Dum-friesshire. Having been educated at Edinburgh University, he became a master at Haddington (1810) and at Kirkealdy (1812). He here taught Jane Welsh (afterwards Mrs. Carlyle), and fell in love with her, but he was already engaged to a Miss Martin, whose family prevented him from breaking off the engagement. In 1815 he obtained a licence to preach from the Church of Scotland, and four years later became an assistant to Dr. Chalmers, then in Glasgow. In 1822 I. became the minister of Cross Street Chapel, Hatton Garden, London, and his sermons became ex-don, and his sermons became ex-traordinarily popular. In 1823 he published For the Oracles of God and For Judgment to Come, in which he declared his belief in the second per-Dr. Primrose (in Olivia), Landry (in

known as Montepeloso, 24 m. N.E. of popularity waned as his views de-Potenza in the prov. of Basilicata. veloped. His belief in Christ's onenes with men in the attributes of humanity was misinterpreted, and he was accused of imputing sinfulness to Christ. In 1827 he translated a Spanish book, The Coming of the Messiah in Majesty and Glory, by Juan Josafat Ben Ezra. In 1830 he was tried before the London Presbytery, and two years later was deposed from the ministry. In conjunction with Henry Drummond he established the Holy Catholic Apostolic to t his

of the Apocalypse, and recognised orders of apostles, prophets, evangelists, and angels. I. became 'chief pastor ' of this new sect's first church in Newman Street, but died shortly afterwards in Glasgow. His complete works were published in 5 vols. by Gavin Carlyle. Consult Carlyle's ad biogra-· ilks (1854)

Irving, Sir Henry (1838-1905), an actor, whose original name was John Henry Brodribb, was the son of a Somersetshire tradesman, who afterwards settled in London. The boy's tastes always inclined to the stage, and, while he was a city clerk, he took lessons in elocution, fencing, and dancing, and devoted such leisure as he had to reading and studying plays and frequenting the theatres. At the age of eighteen he threw up his berth and secured an engagement in a stock company at Sunderland and, later, another at Edinburgh. He remained in the provinces, learning his art, until 1866, when he made his London début at the St. James's Theatre as Doricourt in The Belle's Stratagem. At the same theatre, in the following December, he played Petruchio to the Katherine of Ellen Terry. He was now firmly established as a London actor, but he did not achieve any marked success until 1870, when his performance of Digby Grant in The Two Roses made him popular. His Alfred Jingle in Pickwick added to Affired Jingle in Presence annear Camous when he played in The Bells at the Lyceum (Nov. 25, 1871). In 1874 he played Hamlet for two hundred nights, and with this performance, around which a controversy arose as to his rendering, he rose to the head of his profession. Four years later he became manager of the Lycoum, and,

generosity unbounded, and when in 1898 his store of scenery was burnt down, he had to part with the lesses ship of the Lyceum, though he con-tinued to act there until 1902. In the following year he played in Dante at Drury Lane, then went for the eighth time to America, made a tour in England, and in April 1905 revived Becket at Drury Lane, where he was enthusiastically received. He went on tour again, but his health was broken, and after a performance of Becket at Bradford on Oct. 13, he collapsed, and died a few hours later. He was buried in Westminster Abbey. It was the greatest figure in the theatrical world of his day, head and shoulders above all his contemporaries. He rarely produced a modern play, being true to his dictum that the actor who wishes his fame to be handed down to posterity must enact the classic rôles. He had many defects, an awkward gait, and a habit of mouthing his words, which latter drawback was markedly less in his later years; but as against these he had dignity, a fine sense of comedy, and a great conception of tragedy. He had, too, great intelligence, and to all his productions, alike in his preparation of them as in his own performance, he brought his intellect to bear. It was his great ambition that acting should take its place among the recognised arts, and un-doubtedly he had much to do with raising the status of his profession. He was the first actor to be offered a knighthood, and, after having declined it twelve years earlier, in 1895 he accepted the honour. There are ne accepted the motor. There are several biographies, including those by Bram Stoker (1906) and Austin Brereton (1908).

Irving, Washington (1783-1859), an author, born in New York of a father who claimed a Scottish descent and

of a Cornish mother. He was given but an indifferent education, after which, for his health's sake, he visited which, for his health's sake, he visited Europe, before settling down in the city of his birth. After some cssays in the monthly periodical, Salmagundi, he published in 1809 a History of New York, by Diedrich Knicker bocker, an admirable burlesque. In 1815 he came to England, where he remained for many years and he soon remained for many years, and he soon became dependant on his pen for a livelihood. His Sketch-Book appeared in 1820, and was well received on both sides of the Atlantic, his 'Rip Van Winkle' and 'Westminster Abbey'

The Dead Heart), King Lear, Becket this was followed by Bracebridge (in Tennyson's play), and Corporal Hall, 1822, and Tales of a Traveller, Brewster (in A Story of Waterloo). I. 1824. As the result of a sojourn in Spain was not a good man of business, his he wrote The Life of Columbus, 1828; production expenses were heavy, his he wrote The Life of Columbus, 1828; The Conquest of Granada, 1829; The Alhambra, 1832, and other works, which were very popular. I. returned to New York in 1832, where he was enthusiastically welcomed. His later



WASHINGTON IRVING

books include ' smith, Mahome and Recollection

Newstead Abbey. He had the gift of style in no small degree, and in all his work there is charm, but he is seen at his best in his shorter efforts.

his best in his shorter efforts. His fame rests mainly on the Sketch-Book. There is a biography by his nephow, P. M. Irving (1862-64).
Irvingites, see IRVING, EDWARD.
Irvington, a tn. of Essex co., New Jersey, U.S.A., 3 m. S.W. of Newark. It manufs. tools, ropes, steel, wall-papers, etc., and has smelting-works. Pop. (1910) 11,877.
Irwell, a riv. of Lancashire, England, rising 2 m. S. of Burnley, and flowing in a tortious course of 40 m.

flowing in a tortuous course of 40 m., through Bacup, Rawtenstall, Bury, and Manchester, to the Mersey at Irlam. The Manchester Ship Canal is now included in the lower part of its course. Length 40 m.

Isaac, the only son of Abraham and Sarah, born in their old age (Gen. xvii. 17). For the story of his being offered as a sacrifice and the miracubeing singled out for especial praise; lous intervention of Jehovah, see

Gen. xxiii. 'When forty years old he arrived his cousin Rebecca, who bore the republic of Haiti, W. Indies, and him twin sons, Esau and Jacob. He are the republic of Haiti, W. Indies, and 36 m. W.N.W. of Santiago. Founded by Columbus (1493), the first Euro-eventful, nomadic life, and to have died in Hebron at the age of one hundred and eighty. See Abraham, Rico, W. Indies, 10 m. N.E. of also Rawlinson's Isaac and Jacob (Non of the Rible series 1890). married his cousin Repecta, who bore him twin sons, Esau and Jacob. He seems to have lived a peaceful, uneventful, nomadic life, and to have died in Hebron at the age of one hundred and eighty. See Abraham, also Rawlinson's Isaac and Jacob (Men of the Bible series, 1890).

Isaac I. (Comnenus), an emperor of Constantinople (1057-59), the first of the house of Commeni. He had served in the army, and on the deposition of Michael VI. was declared emperor by the soldiers (1057). He repaired the finances, forced the clergy to contribute to the state revenue, and repelled the attacks of the Hungarians and Petchenegs in the N. In 1059, being overcome with a serious illness, he abdicated and retired to the monastery of Studion where he died in 1061. His Scholia and other works on Homer are extant.

Isaac II. (Angelus), an emperor of Constantinople (1185-95 and 1203-4), succeeded Andronicus I. Hisreign was disturbed by continuous rebellions. In 1197 his brother Alexius seized the throne by force and I. was blinded and imprisoned. Eight years later he was restored to the throne, but was too weak, mentally and physically, to rule, and died shortly after Mourzouphes, his general, usurped the throne. He was a weak and licentious prince, and by squandering public money acquired a temporary reputa-

tion for generosity.

Isaacs, Sir Rufus (b. 1860), an English lawyer and politician, educated at University College School, London, and on the continent; he was a member of the Stock Exchange, which he abandoned for the bar, to which he was called in 1887; his knowledge of the city brought him forward almost immediately in company actions, and within a few years he had one of the largest practices at the bar; he took silk in 1898. In 1904 he was elected Liberal member for Reading, for which he still sits. In 1910 he be-came Solicitor-General in Mr. Asquith's ministry (1910), and was knighted, and Attorney-General the same year on Sir Samuel Evans's clevation to the presidency of the Admiralty, Probate, and Divorce Admiralty, Probate, and Divorce Court. In 1912 he became a member of the Cabinet.

Isabela: 1. A N.E. coast prov. of Luzon, Philippines, area 5394 sq. m. It is mountainous and covered with Consul forests. Coffee, sugar-cane, rice, maize, (1859).

Pop. 15,000.

Isabella (1292-1358), the daughter of Philip IV. of France, and wife of Edward II. of England, whom she married in 1308. She sided with the Edward and barons against Despencers, and in 1326, having been sent over to France to settle a dispute between her husband and her brother. the French king, she collected forces, and, being joined by Roger Mortimer, her lover, and other barons, attacked and defeated the king, who was probably put to a cruel death. She and Mortimer ruled supreme for a time, but in 1330 Edward III. had Mor-timer executed, and imprisoned his mother in Castle Rising for the rest of her life.

Isabella (1451-1504), Queen of Castile and Leon (1474), wife of Ferdinand V. of Aragon. Her father and nand V. of Aragon. mother were both descendants of John of Gaunt of England. She sympathised with Columbus's ambitions.

Isabella II. (1833-70), born in Madrid in 1830, was the eldest daughter of Ferdinand VII. She was proclaimed Queen of Spain at the age of three, on the death of her father, who had persuaded the Cortes to repeal the Salic law. Her title was disputed by Ferdinand Don Carlos, and her reign was one continual succession of quarrels and intrigues. 1846 she married her cousin, Prince Francisco de Assisi de Bourbon (1822-1902), from whom she separated in 1870. In 1868 she had been forced into exile, and abdicated two years later in favour of her son, Alphonso XII. Isabey, Jean Baptiste (1767-1855), a

French portrait painter, born at Nancy. He studied under Dumond and David, and was employed at Versailles, where he painted the portraits of most of the celebrities of his He painted many of the revolutionaries, including Barrère and Saint Just, and was patronised in turn by Napoleon and Josephine, and by the Bourbon sovereigns. Apart from portraits, his best known works are 'Isabey's Boat,' 1796; and 'Review of Troops by the First Consult. Consult his Life by M. E. Taigny

Isaus, an Attic orator, son of Diagoras, born at Chalcis in Eubœa.

He lived between 420 and 350 n.c., and was the fifth of the ten Attic Negros Occidental prov., Philippines, orators. He was a pupil of Isocrates, 37 m. S. of Bacolod. Pop. 13,000. and wrote judicial orations for other

neople. rhetoric at Athens, in which Demos-thenes is supposed to have been his pupil. Eleven only of his speeches are extant. They throw an important light on Attic law. See Jebb's Attic Oratory from Antiphon to Isaus, 1893;

Wyse's Speeches of Isaus, 1905. Isaiah, son of Amoz, was greatest and most important of the early Jewish prophets. It is evident from his writings that he was of high social rank, and he was, moreover, an inhabitant of Jerusalem. We learn from ch. viii. 3 that he was married and the father of a family. The heading of the book which bears his name ing of the book which bears his name (i. 1) tells us that he prophesied from the year of King Uzziah's death (740 B.c.) through the reigns of Jotham, Ahaz, and Hezekiah, and a late tradition (cf. Heb. xi. 37) tells us that in the days of Manasseh he suffered death by being sawn causides but no montion of such a asunder, but no mention of such a fate is to be found in the Book of Kings. The account of the vision by which the prophet was called to his work is given in ch. vi. The book which bears his name has during the last century been the subject of much discussion. Aben-Ezra was the first to call attention to the fact that the book was capable of sub-division, and later critics have carried on the work of sub-division most vigorously. The chief break comes after ch. xxxix. Chapters xl. to lxvi. contain many passages that conclusively prove them to be post-exilic. The people are addressed as those who have already suffered the punishment of their sins and who are now in exile. Further, in the discourse concerning the righteousness of Yahweh, which begins at ch. xli., Cyrus, who reigned more than a century after the death of I, is adduced as a sign that Yahweh will fulfil his promises in the near future. This latter section is itself generally divided into two parts, viz.xl.-lv.andlvi.-lxvi., known respectively as Deutero-Isaiah and Trito-Isaiah, of which the second is the earlier in date. The question of the subdivision of the earlier part of the work is more difficult and complicated. Here, again, certain portions such as xili.-xiv. 23, xxiv.-xxvii., etc., are shown to be post-exilic by the fact that they presuppose the conditions of later times. It would be impossible here to speak of the more elaborate sub-divisions, such as those of Cheyne (Ency. Biblica, etc.), but most scholars are agreed in making a foursolidars are agreed in making a lour-fold division of the prophecies in the 4th century. I. have had the actually attributed to I. These divi-sions correspond to four invasions of Zeno (474-491 a.d.) and Leo III. (718-Palestine. The first is that of Tighth-Pileser, prophesied in cls. ii. to Geography of Asia Minor, 1904.

and founded a school of the beginning of x., and possibly also at Athens, in which Demostin certain later parts. The second, in certain later parts. that of Shalmanezer and Sennacherib. ch. xxviii., contains the first promises of the coming prince whom later ages have identified with the Messiah. There is much doubt as to the extent of the third invasion, that of Sargon. whether or no it included Judah. Driver, Robertson Smith, and others hold that it did not, and assign to this period xx.-xxi. 10; Cheyne, Sayce, and others hold the opposite view, and give cha. x. 5-34 and xxii. To the last invasion, that of Sennacherib, belong most of the chapters from xx. See Ewald's Prophets of the Old Testament; Driver's, Isaiah, 1883; G. A. Smith's commentary in The

G. A. Smith's commentary in Inc Expositor's Bible; and works by Dillerman, Delitzsch, Cheyne, etc. Isambert, François André (1792-1857), a French lawyer, born at Aunay, Sure-et-Loire. In 1818 he Aunay, Sure-et-Loire. In 1818 he began his career as a lawyer in the Court of Cassation, and the opinions which he held brought him into conthreat ne near prought aim into continual conflict with the government. About this time, also, he took an active interest in the slaves of the West Indies. In 1830 he was appointed councillor of the Court of Cassation, and continued to represent the Opposition provides and the continued to the court of the Court of Cassation. sent the Opposition party in politics. Among his chief works may be mentioned : Recueil Général des anciennes tioned: Recueil General des anciennes lois françaises, 1823-33; Tableau historique des progrés du droit public et du droit des gens Jusqu'au XIXe Siècle, 1832; Histoire de Justinien, 1856.
Isandlwana, or Isandula, an isolated kopje in Zululand, 60 m. W.S.W. of Ulundi, S. Africa. Here, during the Zulu War, Colonei Durnford's column was surprised on Jan 29, 1879, by

was surprised, on Jan. 22, 1879, by 20,000 Zulus under Cetewayo, and annihilated, Colonels Durnford and Pulleine being killed.

Isar, a river of Bavaria, rising in the Tyrolese Alps and flowing N. and N.E., passing Munich. It enters the Danube opposite Deggendorf. Length 180 m.

Isauria, an ancient dist. in Asia Minor, bounded by Pisidia, Lycaonia, and Cilicia. In Roman times, the inhabitants were a barbarous race and daring robbers. They were overcome by P. Servilius in 78 n.c., but soon rebelled and were a constant source of trouble. The rebel, Tre-bellianus, in the 3rd century A.D., assumed the title of emperor, but was overpowered and executed. Isauri are said to have been effectually subjugated in the reign of Justinian

Isbarta (ancient Baris), a tn. of Asia Minor, 180 m. E. of Smyrna. It is well supplied with water and has many large gardens. A destructive earthquake occurred here in 1889. Carpet weaving is the chief industry. Pop. 20,000.

Ischia (ancient Enaria), a very fertile and picturesque island in the Bay of Naples, Italy. In the centre is an extinct volcano, from which the surface gradually slopes all around towards the sea. Corn, fruit, and wine are grown; straw plaiting and fishing are carried on. The island was disturbed by earthquake shock in 474 B.C., 92 B.C., 1302, and 1883 A.D. The chief towns are I., the capital, and Casamicciola, visited for its hot springs. Pop. 28,000.

Ischl, or Bad Ischl, a magnificently

situated inland watering-place of Upper Austria, 30 m. E.S.E. of Salzburg. Chiefly known for its medical baths and as the summer residence of the Austrian imperial family. Important industry in salt.

Pop. (1910) 10,188.

Iseghem, a tn. of W. Flanders, Belgium, 24 m. S.W. of Bruges. Manufs. textiles. Pop. about 12,000. Iselin, Charles Oliver (b. 1858), a United States banker and yachtsman, born in New York. Well known in the yachting world as the head of the syndicate which won the America Cup in 1895 with the cutter Defender against Valkyrie III. owned by Lord Dunraven. In Oct. 1899, he was again, with Mr. J. Pierpont-Morgan, winner of the cup, the Columbia beating Shamrock I., owned by Sir Thomas Lipton. In 1901 the Columbia was again successful against Shamrock II., and in Aug. and Sept. 1903 Mr. Iselin was part owner of the Reliance, which defeated Shamrock III., also owned by Sir T. Lipton.

Iseo, Lago d', a picturesque lake of Italy, 15 m. long and about 21 m. broad, at the foot of the Alps, between Bergamo and Brescia. It is traversed

by the R. Oglio.

Iseran, a pass in the Alps (9085 ft.), connecting valleys of the Arc and the Isere. The neighbouring peak, Mt. Grand Paradis, was for years confused with Mt. Iseran, owing to the fact that the Montagnards call mount not a peak, but a series of pastures, and that the pastures here were called Mt. Iseran.

Isère: 1. A dept. in the S.E. of France, between the Rhone and Savoy, formed out of the ancient prov. of Dauphine. The southern portion is very mountainous, the lare of highest point being the Aiguille du Midl (13,075 ft.) which rises on the S.E. frontier. The N. and W. of the department is formed of plateaux Mich., U.S.A. It is supported chiefly

broken by hills and valleys. The R. Rhone surrounds it on every side but the S., while its tributary, the I., flows through it. The department The department is divided into four arrondissements, Grenoble, St. Marcellin, La Tour de Pin, and Vienne. The capital is Grenoble. Silver, lead, coal, and iron are mined; slate, stone, and marble quarried; and gloves, silk, paper, and cement manufactured. Green Charwas manufactured in the monastery 14 m. N. of Grenoble. Area 3179 sq. m. Pop. 555,911. 2. A river. rises in the Alps, and, winding W. and S.W. for 180 m. (100 m. of which are navigable) through the departments of Savoie, I., and Drôme, joins the Rhone a few miles above Valence.

Isergebirge, a part of the Sudetic Mts., and a continuation of the Riesengebirge, on the borders of Bohemia and Prussian Silesia. Tafel-

fichte (3680 ft.) is the highest point.
Iserlohn, a tn. of Westphalia,
Prussia, 36 m. by rail S.E. of Dortmund. It has manufactures of cutlery, bronze articles, and other metals, furniture, and chemicals, Pop. 31,294.

Isernia (ancient Esernia), a tn. of Italy, prov. of Campobasso, 60 m. N.N.E. of Naples. Pottery and textiles are manufactured. I. has remains of great antiquity. Pop. 9500.

Ishim: 1. A tn. of Siberia, 120 m. S.E of Tobolsk, on the Ishim R. It has an annual fair held in December, and there are tallowmelting works, spinning and weaving mills. Pop. about 7000. 2. A river of Siberia, rising in Akmolinsk and flowing through fertile districts for a distance of 350 m. It Irtysh S.E. of Tobolsk. It joins the Its total length is 700 m.

Ishmael, the son of Abraham by Hagar, the Egyptian handmaiden of his wife, Sarah. On account of Sarah's jealousy of his mother, I., at the age of fifteen, was expelled from his father's hard and a state of the same of the his father's house and driven into the wilderness, when a guardian angel preserved their lives and directed them to water (Gen. xxi. 19-21). The boy grew up into a famous archer, married an Egyptian woman, and became the ancestor of a great nation. Mohammed claimed descent from I., and Mohammedans assert that he is buried with his mother in the Kaaba at Mecca. Cf. Genesis the Kaaba at Mecca. xvi. 12.

tribe. Bantu close Ishogo. neighbours of the Ashangos, dwelling in the mountains S. of the Ogowe in French Equatorial Africa. are of fine physique, and occupy themselves principally in agricultural

Ishpeming, a city of Marquette co..

by its extensive iron mines, which i Donation of Constantine. produce the best quality ore. and marble are also found in the neighbourhood. It also has smelting furnaces, powder works, and engineering shops, and manufactures dyna-

mite, boilers, etc. Pop. (1910) 12,448.

Isidore of Charax, a Persian writer, supposed to have lived in the 1st century A.D. He is remembered for his work entitled Parthian Itinerary, containing a list of the eighteen pro-vinces of Parthia, with their chief, and the distance of one town from

another.

Isidore of Gaza is mentioned by Photius, and has been confused with Isidor of Alexandria. There is little Isidor of Alexandria. known of him beyond the fact that he was one of those who went to the Persian Court with Damasius when Justinian closed the schools in Athens in 529. Suetonius mentions an Isidore who was a Cynic philosopher and said to have ridiculed Nero in public, there is some difficulty in but identifying him.

Isidore of Pelusium, Saint (c. 370c. 450), an abbot of the monastery of Pelusium, and was probably born at Alexandria. He is chiefly remembered by his letters, numbering in all about 2000, and containing many explana-tions of passages from Scripture. They are collected in J. Migne's Patrologia Graca, 1857-66. See Patrologia Græca, 1857-66. See P. B. Glück, Isidori Summa Doctrina Moralis, 1848.

Seville, Isidore of Seville, or Isidorus Hispalensis (c. 560-636), Bishop of Seville and Spanish encyclopædist. Isidore of or Isidorus He was educated in a monastery and became distinguished in his controbecame distilliguished in 1599 he was chosen Bishop of Seville, and became famous for his powers of administration and his learning in administration and the learning in the learning and the learning in the learning and the learning in th science, history, and theology. He was present at the councils of Toledo (610) and Seville (619), and it was his influence that altered the organisation of the Church in Spain. He wrote an encyclopædia from his own knowledge; it included law, science, history, and theology, and helped to keep alive some knowledge of learning through the dark ages. Among his works are: Originum seu etymologiarum libri xx., and a history of the Goths and Vandals.

Decretals, Isidorian False or Decretals, a spurious amplification of the canonical collection in use in the Church of Spain in the 8th century. The author assumed the name of Isidore, taking in addition the name of Mercator. The collection is divided into three parts. The first contains seventy letters (forged) attributed to seventy letters (forged) attributed to various popes. The second contains a collection of councils and the forged spanish satirist, born at Villa Vidanes,

Gold third a series of decretals from the The object of the Nicæan council. forger was to reform the canon law. They were very skilfully composed, were the cause of violent controversy.

Isinglass, a variety of gelatin, obtained from the dried swimming-bladders of different fishes. It is used principally for culinary purposes and for clarifying beer and wine, and also for making cement and plaster. It is manufactured chiefly in R Canada, Brazil, and the Indies.

Isis, an ancient Egyptian deity, the goddess of fecundity, identified in Greek mythology with Ceres. She was the wife of Osiris and the mother of Horus, and daughter of Nut or the Sky. Her story is one of great beauty and tragedy, and is briefly as follows: Osiris, King of Egypt, was the victim of a conspiracy led by his brother Set, the god of evil. Osiris was entrapped in a chest which was thrown into the Nile, carried away and finally thrown up on the seashore. Isis, after long search, found the chest, mourned over it, and hiding it went to urge Horus to avenge his father. Meanwhile Set, coming upon the chest, cut the body of Osiris into fourteen pieces and had them dispersed over the land. Isis then gave herself un to travelling from place to place, building a temple over each fragment of her husband's body as she found it. Osiris became lord of the other world, and appeared to his son Horus and and appeared to his son Horus and taught him the use of arms. Horus defeated Set and took him prisoner, but being enraged because his mother gave Set his freedom, he cut off her head. Thoth replaced it in the form of the head of a cow. The outstretched wings of Isis are frequently found in Egyptian decoration, she is often represented with the force of a often represented with the face of a woman and the horns of a cow, sometimes with the lotus on her head, and at other times hooded-the latter representing incidents in her career.

Isis, a name applied by the Oxonians to the upper part of the R. Thames, England. This name was used as early as 1607, for Camden mentions it. The popular belief that the name Thames is derived from the composition of Thame and Isis is incorrect.

incorrect.

Iskanderun, for another name

ALEXANDRETTA (q.v.).

Iskelib, a tn. of Asia Minor, near the Kizil-Irmak, in the vilayet of Angora, 100 m. N.E. of Angora. Has an old castle, and there are saltsprings S. of the town. Pop. about

Leon. He was a Jesuit priest and a tinental shelf, and their flora and famous preacher. Disgusted by the fauna are similar to those of the adignorance of the Spanish priesthood, jacent continent; for example, the he held them up to contempt and ridicule, with a wit and humour that was irresistible, in a novel entitled Historia del famoso predicador fray Gerundio de Campazas. The book was prohibited (1760) in consequence of the storm of protests raised by the victims, but he published a second part in 1768 unknown to his superiors. He also translated Gil Blas into Spanish (1787; 2nd ed. 1878). In 1850 his Obras Escogidas came out as vol. xv. of the Biblioteca de Autores Españoles. His other works were unimportant and consisted mainly of satires on the custom and ceremonies of the Spanish Church. With the other Jesuits he was banished from Spain in 1767, and went to Bologna where he lived until his death. See Bernard Gaudeau, Les Prêcheurs Burlesques en Espagne au XVIIIe Siècle (Paris), 1891.

Islamabad, a tn. in Kashmir, India, on the R. Jhelum, the original capital of Kashmir, but now of secondary importance. It possesses an old summer palace, a beautiful mosque, and a shrine. Close to it are the sulphur springs of Anant Nag falling into a reservoir full of sacred fish. Chintz, cotton, and woollen goods are manufactured, and the famous Kashmir shawls. Pop. 9500.

Islamism. virtually the Mohammedan faith (see Mohammedanism). The term is used in a broader sense the term is used in a broader sense to refer to the general features—philosophical, religious, artistic, and social—of Mohammedan culture, e.g. in Nietzsche's Antichrist; Renan's lecture, Islamism and Science (pub. English trans.), 1896, etc.
Island (Old Eng. ieg, isle, and land), a piece of land surrounded by water. The largest Vs. of the world the great.

The largest Is. of the world, the great mass of Europe, Asia, and Africa, N. and S. America, and Australia, are termed continents. Greenland, the next in size (less than one-fourth the size of Australia), is possibly an ice-bound archipelago. New Guinea has an area of 303,000 sq. m., and Borneo (284,000 sq. m.), Madagascar (227,000 sq. m.), and Sumatra (162,000 sq. m.) rank next; Great Britain comes sixth on the list, with an area of 83,700 sq. m. Is. may be divided into two classes, continental and oceanic. The former are the result of the submergence of a coastal range, or may have been formed by the sea cutting through the neck of a peninsula, or the cating back of an is Ben Bheigeir (1609 ft.). Fishing is peninsula, or the cating back of an is Ben Bheigeir (1609 ft.). Fishing is inlet until a piece of the land is cut very good in the streams and lakes; off. In all cases, except New Zealand and Madagascar, these Is. are considered with the mainland by a context of the chief industries. The chief neeted with the mainland by a context of the chief industries. The chief industries.

jacent continent; for example, the Is. of the W. coast of Scotland bear this relation to Great Britain, which itself bears the same relation to the continent of Europe. They may be classed according to their structure, if they be solitary, as Iceland; in chains, like Japan; or in archipelagoes, as in the Ægean. Oceanic Is. rise abruptly from great depths, and show no geological continuity with the mainland. They are due to various causes, and may be either 'volcanic. due to the gradual rising above the waves of submerged mountain peaks. or to a violent volcanic upheaval of the ocean-bed; or 'coral Is.,' due to the gradual agglomeration by the action of the water, or the active building of the corals themselves, of the skeletons of marine organisms Numerous submarine (see CORAL). Is. have been discovered which only require volcanic action or the deposition of sediment to rise above the surface of the ocean. See GEOGRA-PHICAL DISTRIBUTION.

Islands, Bay of, a bay on the W. coast of Newfoundland, in the Gulf of St. Lawrence, forming an estuary at the mouth of the Humber R. It is famous for its beautiful scenery, and is within easy reach of good fishing

and hunting.

Island Scots, a body of Highlanders. scendants of Somerled, Thane of descendants of Somerled, Thane of Argyll and Lord of the Isles, who settled in Ireland, establishing them-selves in the mountains of Ulster, seives in the mountains of Uster, plundering the surrounding country. The Earl of Sussex made an attempt to subdue these Macdonalds (MacDonnells) but failed. They were finally defeated by their former ally, Shane O'Neill, who took their leader, Sorley Boy MacDonnell, prisoner. The English restored the MacDonnells and Shane O'Neill was slain by nells, and Shane O'Neill was slain by one of the Highlanders in a brawl (1567).

Islandshire, a part of Northumber-land, England. It was at one time part of the county of Durham; it includes the Farne Is. and some districts near

Berwick-on-Tweed.

Islay, an island of the Inner Hebrides, Argyllshire, Scotland, 13 m. W. of Kintyre, separated from Jura by the Sound of I. Area 150,400 acres, or 235 sq. m. The locks of Grunart and Indal penetrate so deoply that the western portion is almost separated and known as the Rhinns of Islay. The highest summit is Ben Bheigelr (1609 ft.). Fishing is chief seat of the 'Lords of the Isles,' but the Campbells ultimately gained the island about 1616. Pop. (1911) 6387.

Isle de Bourbon, see RÉUNION.
Isle Jourdain, a tn. in the dept. of
Gers, France, on the Save, 18 m. W.
of Toulouse. It has great horse and
cattle fairs and considerable trade in agricultural produce and wine. It is an old town, and contains an ancient church with a tower dating from the 10th century. Pop. 4500.

Isle of Dogs, a dist. of London, England, on the N. bank of the Thames. It forms a peninsula opposite Greenwich, being cut off by the canal of the West India Docks. It forms part of the borough of Poplar, and is a very poor district, made up of docks and riverside works.

Isle of France, see MAURITIUS.

Isle of Man, see MAN, ISLE OF.
Isle of Wight, see Wight, ISLE OF.
Isles, Lord of the, a Scottish title
claimed by the descendants of Somerled (d. 1164), Thane of Argyll. Somerled was a descendant of Colla-Uais of Ireland. He succeeded in driving the Norsemen from Argyll and the West-ern Isles, establishing himself as an independent prince; his lands in-cluded Kintyre and the Isle of Man. His descendants maintained themselves in the same manner. In 1411 the Donald of the Isles, who had be-come very powerful by his fleet and good-sized army, claimed the earldom of Ross through his wife, including the Isle of Skye. The Earl of Mar, with an army of Lowlanders, marched against him, and Donald was defeated with great loss at the battle of Harlaw in Aberdeen. The earldon then reverted to the crown (1424), but was restored by James I. to the heiress, mother of Alexander Mac-donald, third Lord of the Isles and thus eleventh Earl of Ross. John thus eleventh Earl of Ross. John Macdonald, fourth Lord, committed treason, and was deprived of his earl-dom (1469). In 1502 Donald Dhu, grandson of John, was proclaimed king of the Isles, and led a revolt against James IV. He was defeated and fled to Ireland. Since 1469 the filten of the Isles has belonged. title of Lord of the Isles' has belonged to the Prince of Wales. The title The title thern C Lady of the Isles ' is sometim plied to the wife of Baron Macc

descendant of a half-brother o . of the Isles. It is, however, a of keen controversy. The he

Several nawere 'never to die.' Several na-tions seem to have believed in this tons seem to have believed in this myth. Tradition places the Amenet (pleasant place of the dead) of the early Egyptians somewhere in the Western Ocean; the Babylonians believed in an isle of the blessed encircled by four rivers. The Greek belief expressed by Homer appears to connect them with the Eurisian Wields. connect them with the Elysian Fields. Plato describes in his Timœus how Solon was told by Egyptian priests of a country larger than Asia Minor, which was overwhelmed by the sea, this was known as 'Atlantis,' and the surviving islands were termed the Fortunate Isles. A very early tradition suggests that an unrecorded voyage to the Canary Isles and Madeira may have gained these places this mythical name. The Celtic Avalon of King Arthur and St. Brendan's Is. were represented as blest with summer all the year round, and therefore fortunate. There are also legends of Brazil and of Lyonesse of

Cornwall and many others.

Isle-sur-la-Sorgue, a tn. in the Vaucluse dept. of France, 12 m. E. of Avignon, picturesquely situated on the Sorgue, a tributary of the Rhone. The inhabitants are chiefly engaged in the textile industry. Pop.

6500.

Isleworth, a tn. and dist. in Middlesex, England. Situated in the fertile valley of the Thames, it is full of flourishing market gardens and nurseries. It also contains Syon House, a seat of the Duke of Northumberland. The only manufacture of importance is soap. Pop. (1911), including Heston, 43,316.

ing Heston, 43,316.

Islington, a northern metropolitan bor, of the co. of London, England. It includes Holloway, Highbury, Kingsland, Barnsbury, and Canonbury, all retaining the names of ancient manors, the latter belonging as early as the 13th century to the priory of St. Bartholomew, Smithfield, the name still given to the great metropoliton cattle market. The two metropolitan cattle market. The two prisons of Pentonville (1842) and Hollow strict, 1862). also th Other Northern Hos-

le London School of John's Hall, Highbury, is divided into four

of the Isles. It is, however, a fis divided into four of keen controversy. The he divisions, each return-somerled survives in two branches, that of Baron Macdonald of the Isles and the Macdonalds, Earls of Antrim in Ireland.

Isles of the Blest, or Fortunate Isles, a mythical group of islands, on the edge of the Western Ocean, peopled by the blessed mortals who independent line as a strong free

trader. He was a member of the dynasty of Califs and Mahdis sprang London County Council from 1898-from Obeidallah, Grand Master of the 1904. He served in the S. African War Isma'ilites. This man was descended in 1900. In 1910 he was appointed governor of New Zealand, succeeding Lord Plunket. In 1912 he was made chairman of the Indian Public Service Commission. He is also a D.S.O., P.C., and K.C.M.G. He was created a baron in 1910.

Islip, a tn. of U.S.A., Suffolk co., New York, on Long Island, and Great South Bay, a favourite summer resort. It is 41 m. E. of Brocklyn, and the headquarters of several sporting clubs. Has fishing and fruit-canning

industries. Pop. (1910) 18,346.
Islip, Simon (d. 1366), an English prelate, educated at Oxford, probably born at Islip on the Cherwell, near Oxford. He was attached to the service of Edward III., and was appointed Archbishop of Canterbury by the king (consecrated 1349). laboured to remedy the evils caused by the ravages of the 'Black Death,' and to enforce discipline. See Hook, Archbishops of Canterbury, iv.; Wharton, Anglia Sacra, i.; Le Neve, Fasti...ii.; Lewis, Life of Wycliffe. Ismail, or Ismailia: 1. A tn. of Bessarabia, S.W. Russia, on the N. arm of the Danube, 120 m. S.W. of

It is the seat of an active export trade, being especially noted for its fruit. It was at one time a Turkish fortress, but was taken by the Russian general, Suvaroff, in 1790, and finally ceded to Russia in 1878. Pop. about 34,000. 2. A tn. of Egypt, on the Suez Canal, and connected by rail with Suez and Cairo. Has fine public squares and gardens. about 10,000.

Ismailis, Mohammedan sect. who belonged to the Shites. They therefore believed that the imamate was vested in the descendants of Mohammed alone, and so of Ali, the prophet's son-in-law and chosen minister. Their name was derived from Isma'il ibn Ja'far, whom they deemed the seventh and last of the The sect would long ago have died out had not a certain 'Abdallah ibn Maimun arisen (c. 870 A.D.), a Persian sceptic and juggler, who traded on the Isma ilites Messianic belief in a 'Hidden Imam' or The converts of Abdallah Mahdi. learnt to despise all positive religions and outward observances, and to re and aller

peas self · the

Isma ilites. This man was descended from Abdallah, and claimed to be a scion from the stock of Fatima, the prophet's daughter.

Ismail Pasha (1830-95), a khediye of Egypt, will be chiefly remembered in history as the man who by his senseless expenditures opened an easy avenue to European intervention in Egyptian affairs; yet he discovered to his backward people the worth of a good education and of many Western ideas. In 1863 he became viceroy, having successfully crushed a formidable revolt in the Sudan. In 1867 he persuaded the Sudan. In 1867 he persuaded the Turkish sultan to recognise him as khedive, and four years later became virtually independent. During his reign, he enriched many an unscrupu-lous financier; for he built palaces and theatres, founded a sugar industry, re-organised the customs, etc., all with foreign credit. By 1874, the year of the annexation of Darfur, he had piled up a national debt of over £100,000,000, and when he sold his Suez Canal shares to Great Britain (1875), he practically invited her to come to his financial rescue. The final result of foreign interference was the abdication of Ismail in 1879. The remainder of his life was passed in exile.

Ismay, Thomas Henry (1837-99), an English shipowner, born at Cumber-He started a shipbuilding land. business (

serving a ship, and Australia

into partnership with Wm. Imrie, and formed the Oceanic Steamship Com-pany. Three years later they added the American trade, and in 1871 began running tween Liverpo

afterwards I. White Star Line, and a director of many other industrial enterprises. He married Margaret, daughter of Luke Bruce, and had three sons and four daughters.

Ismene, the daughter of Œdipus and Jocasta. She wished to share the punishment of Antigone, her sister. for giving burial to Polynices.

Ismid, or Isnikmid (ancient Nicomedia), a tn. in Asia Minor, situated at the head of the gulf of the same name. It is connected by rail with Haidar Pasha, Angora, Konia, and Smyrna, and contains a fine 16th century mosque. It is the seat of a Greek metropolitan, and an Armenian archbishop, and was formerly the ancient seat of the kings of Bithynia. who were the cause of ceaseless blood-shed and rebellions during the two but it now retains little of its former centuries following. The Fatimite dignity. Its port, Darijeh, is about

Railway Company have built docks and a quay. Pop. about 20,000, con-sisting of 9500 Moslems, 8000 Chris-tians, and 2500 Jews. Isobars (from Gk. 1005, equal, and

βάρος, weight), lines drawn upon a meteorological chart to connect places where at the sea-level or on the earth's surface the atmospheric

pressure is the same at any given time.
Isocardia, the name of a genus of lamellibranchiate molluscs, belonging to the family Cyprinide; they have a thick, equivalve shell, with a spiral apex. I. cor is the heart-cockle.

Isochronism, that property possessed by an oscillating system, e.g. a pendulum, which oscillates in equal times, however great the vibrations may be. This can only be possessed when it moves in a cycloidal arc. Because of their practical I., musical instruments such as tuning forks, organ pipes, and stretched strings give notes whose pitch is independent of the intensity. Sec Sound, ELAS-TICITY, and CYCLOID.

Isoclinal Strata, those which dip in the same direction on both sides of f curvature. They were preceded by ordinary the axis of curvature. doubtless symmetrical folding, after which the vertical axis became tilted and gave a sigmoidal fold; in many cases continued strain has caused the middle limb to be elongated and fractured.

Isoclinic, and Isogonic. When a magnet is suspended freely from its centre of gravity, and allowed to come to rest, it is found that it takes come to rest, it is found that it takes a Thus, As 0_3 in also to the claudetite (orthorhombic); Sb 0_3 in claudetite (orthorhombic); Sb 0_3 in valentinite through the axis of the magnet is (orthorhombic), A and S. are isocalled the magnetic meridian. angle between the plane of the

the magnetic e declination. points on the onic lines are places on the h the declinaangle made by

the axis of the treely suspended magnet with the horizontal is ca"? the inclination or dip. At the magnetic poles the dip is 90°; at magnetic equator its value is zero. It has intermediate values at places between the poles and the equator. those places on the earth's surface at which the inclination is the same. Isocrates (436-338 B.C.), a celebrated Attic orator, born at Athens, where he was taught in the schools of the same of the s

Gorgias, Prodicus, and Socrates. He was prevented by his timidity from ever speaking in public, but wrote orations for others. He started a school of rhetoric at Chios, but sub-

3\frac{1}{1} m. distant, and here the Anatolian Railway Company have built docks and a quay. Pop. about 20,000, consisting of 9500 Moslems, 8000 Christians, and 2500 Jews.

Isobars (from Gk. 1705, equal, and a Cheronea in 338, I. was so overgoing the connect of the secondary of and nine letters have come down to us. His style is correct, harmonious, and dignified, but often somewhat artificial. His most famous oration is the Panegyric, in which he records the patriotic services Athens had rendered to Greece. The chief editions of his extant writings are by Baiter and Sauppe (1856), and Benseler and Blass (1878). See Jebb's Attic Orators (2nd ed.), 1893.

Isocyanides, Carbamines, or Carbyl-Isocyanides, Carbanines, or Carbyi-amines, a class of carbon com-pounds, isomeric with the cyanides, but containing the group -NC, in which the alkyl group is united to carbon through a nitrogen atom. They are extremely poisonous, have a disgusting odour, and on hydrolysis yield formic acid and an amine.

Isodimorphous Substances. substances are said to be isodimorphous when they each crystallise in two distinct forms (i.e. are dimorphous), and in each of their dimorphous forms are isomorphous. For example, arsenic and antimony trioxides each crystallise in two distinct forms which occur naturally in minerals, but each form of the arsenic compound is isomorphous with the corresponding form of the antimony compound. Thus, As₂O₃ in arsenolite (cubic), in norphous,

Lead carbonate (in aragonite. the mineral cerussite) is isomorphous with aracerussite) is isomorphous with ara-gonite, but no form is known which is similar to calcite. Crystals of calcite often contain, however, car-bonate of lead (plumbocalcite), which shows that this latter may also constalling in the same form as as yet it has not

is a distinct mineral. Calcium and lead carbonates may therefore be sa!

Isoëtes, the

the orde. flourishes in temperate and tropical lands and consists of fifty aquatic or semi-aquatic plants. Several of the species are known as quillworts on account of their grass-like appearance, and I. lacustris is known in Britain as Merlin's grass. The genus resembles Sclaginalla in many of its characteristics and is closely allied to that genus of plants.

Isola Bella, see BORROMEAN IS-LANDS.

Isola della Scala, a tn. of Italy, 11 m. S. of Verona. Pop. about 6000. Isola del Liri, a com. of Italy, prov. of Caserta, situated on an island formed by the R. Liri, and 5 m. S.W. of Sora. It has machinery works and paper and woollen mills. about 8500.

Isola Madre, seeBORROMEAN ISLANDS.

Isomerism, a term introduced by Berzelius to denote the phenomenon exhibited by certain substances which were identical in chemical composition, but which possessed different physical and chemical pro-perties. Truly isomeric compounds must have not only the same chemical composition, but also the molecular weights. Thus the hydrocarbon butane can exist in two forms,

The former, therefore, is called normaland the latter iso-butane. Berzelius also introduced the term metamers for the above type of I., and to denote the differences between such compounds as butylene (C₄H₂) and thirly and (C₄H₂) the term and the latter than the same and the ethylene (C₂H₄) the term polymer was suggested. Differences are observed in the case of certain elements, e.g. sulphur which occurs in two different cryst rhombic and differences are c

crystalline conditions and disappear entirely when the element is either dissolved or fused. To this type of L the name polymorphism is given. This differs in kind from the phenomenon exhibited in the case of wood-lice, the only terrestrial forms, oxygen and ozone, as the latter must be regarded as a polymer of the element.

Isomorphism (Gk. ίσος, equal; Gnathilde, μορφή, form). Two substances are are littoral. repent form). Two substances are later fitted and the truly isomorphous when their crystalline forms and chemical (CH2:CMe.CH2:CH2, a liquid boil-compositions are similar. Mitscherling at 35°C. It is best prepared from lich discovered that the phosphates are similar at the same form, and from this and discovered that the phosphates are littled. Something the second control of the second control of late from the fact that other observations he formulated, in it may be converted into a substance

Isola, a tn. in the prov. of Istria, 1821, his 'law of I.,' which states Austria, 9 m. S.W. of Trieste on the that substances of similar chemical S.E. shore of the gulf. It is noted composition exhibit the same crystor the famous I. winc. Pop. 9361, talline form. Since, however, a composition exhibit the same crystalline form. Since, however, a large number of similarly constituted substances are now known which crystallise in distinct forms the statement requires modification. Among truly isomorphous substances may be mentioned the following: The alums, zinc sulphate, ZnSO₄.7H₂O; and magnesium sulphate, MgSO₄.7H₂O; 7H2O; ammonium chloride, NH4Cl (in which the group NH₄ behaves as a metallic radicle); and potassium chloride, KCl, etc. The converse of Mitscherlich's law by no means holds. we find the diamond, C: magnetite, Fe₃O₄: and the alums, which exhibit no chemical analogy. crystallising in octahedra. These substances are not truly isomorphous. but are said to be isogonous. The power to form 'mixed crystals' or 'overgrowths' is generally accepted as a criterion of L. Thus, magnesium and zinc sulphates crystallise together in all proportions in the same form as a crystal of either constituent. and if a crystal of chrome alum be immersed in a solution of common alum. the new layer of the latter will be deposited regularly on the old crystal of the former. The law of I. is the most important generalisation in the science of crystallography.

and has proved of much Huse in settling the atomic weights of several elements. Isopoda, the name of an

order of Malacostracan crustaceans, characterised by a broad, flattened body, with no carapace, and by lamellar legs, whose inner rami serve as branchiæ, situated on the abdomen. They have many features in common with the Amphipoda, as, for instance. the sessile eyes and the firm, calcare-ous covering of the body, but the abdomen of I. is usually much shortened and the heart is situated posteriorly. Some of the larger species inhabit the bed of the sea. are inhabitants of fresh others waters, and many are parasitic on the bodies of fishes and crustaceans. are divided into two sections; under I. Genuina are grouped Oniscoidea, Asellota, Phreatoicidea, Epicaridea; Flabellifera, and of the family consists anomala equal; Gnathlide, most of whose species

Methyl-butadiene

Israel

consisting of silicates of lime, iron, and alumina. It has a vitreous lustrelike obsidian.

Isosceles (literally, equal-sided), the name given to a triangle which

has two equal sides.

nas two equal sides. Isotelus, the name of a genus of trilobites found in the calcareous strata of the United States. Isothermal Lines (from Gk. $t\sigma\sigma$, equal, and $\theta t\rho\mu\sigma$, heat), also called Isotherns, connect places on a map where the temperature on the earth's surface it has grown at any given the surface is the same at any given time at the sea-level. Isothermal charts afford a ready means of studying relative temperatures and may be drawn to indicate the average monthly, seasonal, or annual temperatures. They show clearly how much temperature is affected by the distribution of land

and sea. Isotropy (Gk. ίσος, like, τρόπος, character), a condition of having uniform characters throughout. The term is especially applied, in physics, in connection with substances or media in which elastic stresses are propagated uniformly in all directions. Such substances are termed *isotropic*, and the possession of the quality supposes that the molecular structure the medium is homogeneous throughout its substance. Nonhomogeneous media, on the other hand, are known as arisotropic or heterotropic. In crystallography, I. is a property possessed by certain crystals of the cubic system which have only one index of refraction for rays of the same wave-length. They have, therefore, no action on polarised light. I., in embryology, is applied by Pflüger to that condition where there are no predetermined axes.

Isouard, Nicolo (1775 - 1818), musical composer, born at Malta. At an early age he went to Paris, where he was educated at the Institution Berthand, a preparatory engineering school. He devoted a great deal of his time to the study of the pianoforte under Pui, but, nevertheless, passed his examination for the navy. Before receiving his commission however he was recalled, and returned to Malta in 1790. He then studied music seriously and determined to become a composer. His first opera, Lavviso ai Maritati, was produced at Florence in 1795. In all he composed about thirty-three operas, amongst which are: Artaserse, Michel-Ange. Cendrillon, Joconde, Jeannot et Colin, Les Deux Maris,

L'une pour l'autre, etc.

identical with naturally occurring on the N. by Kashan and Irak, caoutchouc.

Isopyre, a greyish or black mineral, Fars, and westward by the Bakhtiari district and Arabistan. Its popula-tion is over 500,000. Wheat, rice, Its populacotton, opium, and tobacco, are produced in plenty. The town, once the capital of Persia, lies on the Zäyendeh R., which is spanned by fine bridges connecting the city with its Armenian connecting the city with its Armenian suburb. Julfa, the surrounding plain is covered with fertile gardens and orchards. The Chihil Sutun, or Hall of Forty Pillars, Hasht Behesht, the palace of Shah Abbas I., and the Mesjid-i-Shah, or Royal Mosque, are splendid remains of the days of I.'s all of the days of I.'s all of the days of I.'s all or the days of I.'s all glory before the Afghans demolished it in 1722. Traders gather in crowds along the busy bazaars, but whole streets are now in utter desolation. Pop. about 80,000.

Israel (God fighteth), the name given to the patriarch Jacob on the occasion of the famous incident detailed in Gen. xxxii., and it became also the name given to the tribes of the Hebrews collectively and as a nation. In later days, as will be seen, the name was restricted to the northern kingdom of Israel proper, while the southern kingdom was known as Judah. It is proposed in this article to deal with the history of the Hebrews from the time of the Patriarchs to the fall of the temple. (For their history since that date see JEWS.) The accounts which the Hebrews themselves in later days gave of their origin are contained in the early books of the Bible, and these are largely based upon genuine tradi-tion. But as will be seen from the articles on the separate books, they underwent much editing in the course of years, always with a view to securing their greater conformity to a scheme and to increasing their didactic character. Moreover, they show a general tendency to imagine later conditions as present in primi-tive times. The ancestors of the Israelites were certain of the pastoral tribes having their abode in the wild tribes having their about in the what tracts to the S. and E. of Palestine, of N. Semitic (and probably of Aramean) stock. Their nearest kins-men were Edom, Ammon, and Moab. About 2000 B.c. they migrated under their tribal chief, Abraham, from Haran in Mesopotamia into the land of Canaan. Here the tribes continued to lead a pastoral life, and ultimately, in the time of Jacob, a famine in the land of Canaan led to a fresh migra-tion into Egypt. In the Biblical narrative the whole twelve tribes are mentioned as taking part in this migration, but it is important to notice that Ispahan, or Islahan, a tn. and prov. the movement is especially associated of Persia. The province is bounded with the name of Joseph, that is to

in the land of Goshen, where their continued adherence to their own customs and pastoral life led them to be accounted barbarians by the cultured Egyptians. No certain mention of the sojourn of the Israelites in Egypt has been found on the Egyptian monuments, but that permission was often granted to dwell in the Egyptian borders we may deduce from an Egyptian inscription which tells how in the 19th dynasty (c. 1300 B.C.) such permission was granted to certain Edomites. In Egypt a time of great oppression came upon the Hebrews, and they were subjected to the harshest treatment and repressive measures, induced by a fear lest they should ally themselves with Egypt's Then there arose the figure of Moses, the great founder of both the religion and the law of I. It is impossible to attribute to him, as did the Israelites themselves in later days, the whole body of the Hebrew legal and wallar but to him inception. Mo of a priest of Midian, and at Horeb, i.e. Sinai, the mountain of God, he heard the call of Yahweh (Jehovah), his father's God, to deliver I. from the bondage of Egypt. He had much difficulty in rousing the enthusiasm of those he was sent to save, but ultimately the work was accomplished by means of the miracles wrought by Yahweh on behalf of his people. Moses led the Israelites to Mount Sinai, and here a covenant was solemnly made with Yahweh, and the new religion of I. was inaugurated, a religion that may rightly be called new, because based upon a conception of the Deity, more spiritual than any which had yet been conceived. From Sinai they passed to the work of conquering Canaan for which they had set out. An attempt made at Kadesh on the southern frontier was unsuccessful, and they returned to the wilderness, for a time which according to the Biblical narrative made the whole period forty years. During this time Moses died, and it was under Joshua that the entry into Palestine was Anally made. Details of this are given in the Book of Joshua. The Canan-ites were put down, but intermarriage between Hobrews and Canaanites was frequent. Hence came the ills of idolatry which we read of later. The Israelites now settled down to an agricultural and commercial life,

say, the legendary ancestor of the of union between the various tribes chief of the northern tribes which formed I. proper. Here they obtained leave from Pharaoh to dwell in the lead of Cocker where their tribes are revented by the rise from time was prevented by the rise from time to time of the shoftim, of Judges, who roused the dying ardour of the tribes and led them to the extermination of the enemies of Yahweh. Fifteen such heroes are named in the Book of Judges, from which book it will be seen how various were the enemies with which they had to con-Their period shows a regular tend. alternation of sin. punishment, and salvation. After Joshua comes a long period of falling away, followed by the rise of Othniel who delivers I from the oppressions of Cushan of Mesopotamia, into whose hands they had been given. On his death, I again sins and is punished by the hands of Eglon, king of Moab. This time salvation comes through Ehud, but his death is followed by another relapse into idolatry, and so things continue. Among the rest of the 'Judges,' the most famous are Deborah the prophetess, and Barak, Gideon, Jephthah, Samson, and the prophet Samuel. During this period I. does not come at all into contact with the great kingdoms of the East. At the time of the Hebrew settlement in Palestine, the country was under the suzerainty of the Pharaohs, but it is probable that by this time the suzerainty was little more than in name. The conflicts were rather with their own kinsmen, the Moabites, Ammonites, and also the Midianites. The Philistines were among the most powerful opponents of I., and the story of Samson relates particularly to them. It was while suffering under defeat from this race that the Jews cried for a king, not only that by this centralisation of authority more head might be made against the invaders. but also that they might be like 'all the other nations.' Samuel the the other nations. prophet, who was at that time their leader reluctantly consented to accede to their desires and chose as their king Saul, the son of Kish. From the foundation of the monarchy

(c. 1020 B.C.) to the exile. - Saul soon cc. 1020 B.C.) to the extle.—Saul soon proved his fitness for the new position which had been given to him by brilliant successes, first by the raising of the siege of Jabesh-Gilead, after which he was solemnly proclaimed king at Gilgal, and then by a decisive victory over the Philistines at Microsch 1988. Here the victory was discovered by the side of mash. Here the victory was due chiefly to the bravery of Saul's son Jonathan and six hundred Benjamites who accompanied Saul, who was a member of their tribe. Saul was himself a great warrior, and his next campaign was against the Amalekites, who had long been troubling Judah.

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He was, however, given to fits of madness, and to quiet him in these, David, the son of Jesse the Bethlemite, a 'cunning player on the harp,' is 'cunning player on the harp,' is brought in to play to him. His presence, however, had a bad effect on Saul, and this was increased by David's rapid rise in popularity. His courage and success in war had led Saul to make him his armour-bearer, and his intimate friendship with Jonathan, the king's son, rendered his position such as to cause Saul's jealousy. Moreover, he was the king's son-in-law. Hence Saul decided to slay David, who in consequence became an outlaw, ultimately having his centre of operations at Ziklag. Though he resolutely refused to enter into operations against I., events were so shaping themselves that it was possible for him to return in power on Saul's death. This occurred at Mount Gilboa, and David, on hearing of it, immediately went up to Hebron with his followers and was anointed king of Judah. Meanwhile Abner, Saul's leading general, had taken Saul's son, Ishbaal, to Maha-naim, and there had him crowned as king of I. War in consequence broke out between I. and Judah, in which the southern kingdom was steadily victorious. On the death of Abner and Ishbaal, the crown of I. was offered to David, who immediwas offered to David, who immeu-ately took up the work of uniting the two divisions. He transferred his capital to Jebus (Jerusalem), the great hill-fortress of the Jebusites, whose position had hitherto con-stituted them a barrier between N. and S., and thither he brought the

extension of his power, and war re-In a succession of violent conflicts David secured the freedom of his kingdom, and pushed its boundaries in the N. to Dan, S. to Beersheba, and W. to the Phemician frontier. The eastern boundary was continually changing. David's great work, however, was in the consolidation of the kingdom, and his internal administration. To him, too. the idea of t at Jerusalem. Temple, owe igh poetic and tested by his ' the school nan wn passed from David to his son, Solomon, whose name is associated by tradition with power, wisdom, and wealth. The outstanding features in this reign

bable that it was in some degree subject to Pharaoh, whose daughter Solomon had espoused. Commercial treaties were entered into with such neighbouring monarchs as Hiram of Tyre, in union with whom ships were sent as far as Tarshish (Spain) and Ophir (Southern Arabia?). Moreover, L's position on the main trade route between Assyria and Egypt was fully utilised. Hence much wealth was gathered, but not enough to satisfy the demands of the court, for Solomon now led the life of the ordinary Eastern despot, as is shown by the account of his officers and attendants given in the Biblical narrative. His court was more splendid than any other of which we read in the history of I., but such magnificence could be sustained only by a heavy taxation. The oppression and tyranny which this caused alienated the hearts of many of his subjects. Things reached a crisis on the death of Solomon (930 B.C.), and this the Bible shows us graphically in the account of the deputation, headed by Jeroboam, which came to Solomon's son, Reboam to sel wells from the hundary boam, to ask relief from the burdens which his father had laid upon the There were two courses country. open to him, acquiescence in his people's demands or an attempt to intimidate them. He chose the latter, and the immediate result was a revolt of the ten tribes of Israel under Jeroboam, the son of Nebat. Judah and Benjamin alone were left to Rehoboam, while I., for the name is henceforth reserved to the northern kingdom, made Jeroboam its king.

At this point it will be well to make a short digression, and to consider the main points in the religious condition of the Hebrews and the offects of Jeroboam's revolt in the northern kingdom, carrying the review on a little further as far as the period of exile. The ancient Hebrews had no conception of Yahweh (Jehovah, q.r.) as the God of the whole carth. He was regarded rather as the God of their own particular nation. It seems not to have been questioned that the gods of other nations had a very real existence, though in power and holiness they were not to be compared to Yahweh. This is well seen in Miriam's song (Ex. xv. 11), and in the first

nssumed of worshipped. ins the freof the Jews

tion with power, wisdom, and wealth.
The outstanding features in this reign are, therefore, connected with these recognised Him as the one God. Yall-Now, for the first time, I. took a prominent place among the great the various places where He had nations of the East, though it is pro-

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might be used. A preference is shown for fountains, hill-tops, etc., such as is found in other Semitic cults, and the ceremonial system was probably also akin to these. But the Israelitish conception of the D

and as a result far higher than

ing nations. this advance is shown by the later story of Abraham and the human sacrifice of Isaac, first commanded and then forbidden by the Deity. The advance continued during the period of the Judges, though, as we have seen, relapses into foreign cults and resultant immorality were frequent. In this period the functions of the prophets, such as Deborah, was to bring back the people to the conception of Yahweh as the God of their nation, to prevent, in fact, the re-ligion of Yahweh being entirely over-come by heathen cults. The institution of the monarchy heralded a great change. David brought his royal sanctuary at Jerusalem into pro-minence, and the next reign saw the crection of the Temple. There is no reason to suppose that any attempt was made to suppress the local sanctuaries, though they were probably more or less connected with idolatry. Its purpose was, rather, that here, at certain annual festivals, the whole people might gather for a national least. Though later tradition ascribes to Moses, as is customary, the institution of a priestly succession in the line of Aaron, the institution of the hierarchy is, in point of fact, post-exilic. Sacrifices were offered by the head of the nation, clan, or family, or by a prophet. When Jeroboam instituted a new kingdom, therefore, one of his first acts was to prevent the Israelites from going up to keep the annual festivals at the Temple. He did this by instituting, or reviving, sanctuaries at Bethel (and Dan?), where he set up golden calves as symbols of Yahweh, and instituted a new priesthood. His sin, it would seem, lay not in neglecting the service of the Temple, but in the retrograde step towards idolatry shown by the erection of the golden calves. During the period of the undivided monarchy, the prophets turn their attention to the moral condition of the Israelites themselves, the attempt is to save the religion of Yahweh from internal corruption rather than from Some ults.

ion of the e prophet o onward, the refer-

ences not being uniformly complimentary, as may be seen from those with regard to Saul, where prophecy

and frenzy seem closely connected. The greater prophets, however, saw more clearly into the true meaning of things and gained a fuller conception of the will of Yahweh, whose revela-tion was being made progressively clearer to the nation which He had chosen. The great period of the prophets was the 8th century B.C., to which belong many of the greatest of the Messianic prophecies, such as those in Amos ix. 11, Hosea iii. 5, and those in the earlier half of Isaiah. The high spiritual feeling of the age is also well shown in the Book of Deuteronomy, from which Our Lord quoted the two commandments on which hang all the Law and the Prophets. Here also may be seen the develop-ment in ceremonial. The main feature in the prophets of the 8th century is the demand put forward in the name of Yahweh for justice in the state and mercy in social relations. Often we find strong condemnations of cere-monial and formalism in worship, which was then as now often associated with loose morality. The idea of Yahweh as the judge and ruler of the whole world is now generally accepted, and a still greater development is seen in the emphasis laid upon the moral responsibility of the individual by such a prophet as Jere-miah. The vast majority of the prophets of this time were Judahites. Such were Nahum, Zephaniah, Isaiah,

in the is also Hosea

To return now to the political development. Soon after the death of Solomon, the ten tribes formed themselves into a separate kingdom under Jeroboam, the son of Nebat, while the tribes of Judah and Benjamin continued to uphold the Davidie dynasty. During the two centuries that clapsed between the death of Solomon and the conquest of I. by Shalmanezer, king of Assyria, nineteen kings reigned in the northern kingdom. These nineteen kings may be divided into four periods. The first period (930-890 B.c.) is occupied in attempts to establish a dynasty and in wars with Judah. Its kings are Jeroboam I., Nadab, Baasha, and Zimri. It ended in civil strife, from which ultimately emerges the new dynasty of Omri, which gives us the second period from \$90-\$43. The importance of this dynasty is shown by the fact that I. is usually spoken of on Assyrian monuments as 'the house of Omri.' Its kings, after Omrihimself, were Ahab, Ahaziah, and Jehoram. The reverses which Omrisuffered at the hands of the Syrians

was a great statesman, though the ence on Assyria. As far as L was coninjury his idolatry did to L is well cerned things were made worse by
shown in the Biblical narrative. He the death of Zachariah, the last king formed an alliance with Jehoshaphat, king of Judah, the alliance being cemented by the marriage of Jehoshaphat's son, Jehoram, to Athaliah, daughter of Ahab. The two nations then took united action against the Syrians, with whom, after the defeat of Benhadad II., a treaty was formed. idolatrous practices were largely due to his alliance with Ethbaal, king of Tyre, and his marriage with that monarch's daughter, Jezebel. Ahab died in battle at Ramoth Gilead, and in the reign of Jeboram an attempt was made, in union with Ahaziah, king of Judah, to retake this town. Now occurred the rebellion of Jehu ben Nimshi, in which Jehoram and Ahaziah both perished. Jehu founded his dynasty (which forms the third period, 843-740) in a sea of blood. His operations against I.'s external foes were not so successful, and he was compelled to make with the rising Assyrian power terms which involved the payment of tribute. Down to the time of Jehu, the sovereignty of Judah had remained in the possession of the house of David (six kings), but on the death of Ahaziah an attempt was made by Athaliah to exterminate this dynasty. Joash, however, escaped, and after six years was proclaimed king by Jehoiada, the chief priest. Athaliah was slain and the Davidic dynasty restored. A fresh attack now came from Hazael, king of Syria, who had meanwhile been engaged in defending himself against Assyria. He conquered the country E. of Jordan, and would have attacked Jerusalem itself had not Joash bought him off with nau not Joash bought him off with great presents. Joash was then assas-sinated, and his son, Amaziah, suc-ceeded him. This prince foolishly renewed the quarrel with I., and took the field against its king, Joash, son of Jehoahaz. He was defeated and assassinated, while Joash occupied Jerusalem. After this there succeeds desassificated, while Joash Coupled
Jerusalem. After this there succeeds
for Judah a time of comparative
prosperity and quiet, but in a position
of dependence on I. There was likewise a short period of great prosperity wise a short period of great prosperity in the northern kingdom under Jeroboam II., but this was largely due to the fact that Assyria was going through a period of weakness. Matters changed with the accession of Tiglath-Pileser III. to the throne of that kingdom in 745 n.c. Three courses now lay open to the Syrian states and between them we see constates and between them we see constates, and between them we see con-tinual vacillation. One was that of a

were made up for by Ahab. This king | Egypt, the third was that of dependof the house of Jehu in 740. this there succeeded a period of anarchy lasting eighteen years, during which five kings sat upon the throne, and were in turn violently removed. Shallum ben Jabesh, the slayer of Zachariah, met his death in less than a month at the hands of Menahem, who attempted to support himself by paying tribute to Tiglath-Pileser, and thus making him his friend. Menahem was succeeded by friend. Menahem was succeeded by his son, Pekahiah, who was slain and his charioteer. Pekah. succeeded by his charioteer, Pekah. At this time a general confederacy of Syrian states against Assyria was being promoted, but Ahaz, king of Judah, refused to join it. He relied instead, in opposition to the advice of the prophet Isaiah, upon Assyria. Hence the Syrians and Israelites opened a campaign against him, in which they then were joined by the Edomites. Tiglath-Pileser entered N. Israel in support of Ahaz, and deported into Assyria the leading in-habitants of Galilee and the district around. He also extinguished the Syrian monarchy, and set up Hoshea as vassal king in I. For some years Hoshea remained submissive, but he was then persuaded to revolt by So, king of Egypt. Hence Shalmanezer IV. marched against him, and for three years besieged him in Samaria. The city was evenually taken by Sargon (722 B.C.), and the chief inhabitants of I. to the number of 27,290 were taken into Mesopotamia and Media. They were replaced by Assyrian colonists, and these, intermixing with the inhabitants of the country, formed the mixed race known as Samaritans. The kingdom of Judah had, after all, survived its more powerful neighbour. Here Ahaz was still king, but he was succeeded a few years later by his son, Hezekiah, who attempted a reform in the religion of the country, which had been much debased under the preceding He inaugurated a campaign against local sanctuaries and strove to restrict worship to the Temple. In this he was assisted by Isaiah. Judah was still subject to Assyria, and Hezekiah's friendship with Egypt brought him into danger of punishment from Sennacherib. An Assyrian army was, indeed, approaching Jerusalem when it was arrested by a Egypt was, moreover, preplague. pared to support Hezekiah, and so Sennacherib retired. On the death of Hezekiah the succeeding princes en-couraged the heathen cults in their united defence against Assyria, the couraged the heathen cults in their second was that of adhesion to worst forms, but another and greater

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Josiah (621 B.C.), connected especially with the finding of the book of the law (see Deuteronomy) by Hilkiah the priest. Meanwhile the Assyrian empire was breaking up, and Judah came into collision with Pharaoh Necho II., who was desirous of push. ing the interests of Eygpt. In conflict with him Josiah fell at Megiddo (608), while Jehoahaz, his younger son and heir to the throne, was carried into Egypt, while Necho set Josiah's eldest son, Jehoiakim, on the throne of Judah. In 605 Egypt became subject to Babylon, and Judah became subject to Nebuchadnezzar II. before 600 B.C. In 598 an attempt to regain his independence was made by Jehoiakim, and Jerusalem was besieged. Jehoiakim, the boy-king who had succeeded his father, was taken prisoner, and in the following year (597), from which Ezekiel reckons the years of the captivity, the greatest and noblest of the Jews were deported to Babylon, while Zedekiah was appointed king over those that remained. In 586 a fresh revolt led to the sack of Jerusalem by Nebuchadnezzar and fresh deportations. There was still no peace, however, for Gedaliah, the Babylonian governor left in charge, was assassinated, but the remnants of the Jews fled into Egypt, taking with them the prophet Jeremiah. From the exile to the revolt of the Maccabees.—The exiles in Babylon were well treated, and had opportunities of rising to the highest offices

in the state, as was exemplified in the case of Nehemiah, and as is also shown in the story of Esther, which belongs to the reign of Antiochus Epiphanes. The exile was also a distinctly providential step in the development of the Jewish religion. The impossibility of continuing the ber of Jews were deported to form Temple sacrifices made the Je here the more closely to that was still left them, and rendere outlook far more spiritual. indeed, the true idea of the M first clearly appears in such as Deutero-Isaiah, generally a to this period. The synagogi now instituted and the general conception of the after-life was developed under Persian influences (see The scribes now became a prominent caste, and the historical and ceremonial books were carefully re-edited. But although those Jews whose minds were fixed chiefly on commerce found themselves better off in Babylon than in their own country, the idea of absence from the Temple was intolerable to the re-

reform came on the accession of liverer from whom permission for this step was obtained, the permission being granted in the very year (538 B.C.) in which he overthrew the Babylonian kingdom. Cyrus gave orders that the temple of Yahweh should be restored, and sent a company of Jews, probably including Joshua ben Joza-dak, under Sheshbazzar, himself a Jew. as governor. Unfortunately, however, the opposition which met the project from the Samaritans and others led to its abandonment until the second year of Darius (520 B.C.). The work was then inaugurated and the new temple was dedicated four years later. Nothing more is known of the history of the return from exile until the reign of Artaxerxes Longimanus (462-425), when a band of some six thousand exiles, under the leadership of Ezra the scribe, arrived in Jerusalem. Some ascribe this to the year 458, others make it later than Nehemiah's journey. In 416 further steps were taken by Nehe-In 446 miah, the king's cupbearer, who got himself appointed as governor of Judah. He set to work to fortify the Judah. He set to work to fortify the city of Jerusalem, and with the help of Ezra re-instituted the Temple worship and enforced the carrying out of the law. To this period belongs the final split between the Jews and the Samaritans, made by the establishment by the latter of a rival sanctuary on Mt. Gerizim, accompanied by an entire acceptance of the law and the institution of a fresh priesthood. To this period belongs also the rise of the high-priesthood to a prominence which was later to make it regal. Palestine was affected by Alexander the Great's march through the East, and on the defeat f the Persians at Issus in 333, it became subject to Greek rulers. A large num-~* Alexandria.

kingdom on tine fell to nder whom , ews passed v came into ught. Ultiinfluence

reached Jerusalem itsen, where it was well received by one of the two great parties struggling for the supremacy. The lot of Palestine was, on the whole, fortunate until the reign of Ptolemy Philopator, when they were much oppressed. Things changed still more for the worse when, after the defeat of the Egyptians, Antiochus III. in-corporated Palestine with the do-minions of the Selcucide (197). A deliberate attempt was made under attempts were made to secure a return to Jerusalem. Cyrus was the deed be.

Thousands were put to death rather than give way to such coercion, but ultimately a deliverer arose, who in-augurated one of the greatest and most heroic periods in Jewish history.

From the Maccabees to the destruction of the Temple.—Hitherto the resistance of the Jews had been mainly passive. Active resistance came from the family of Mattathias, an aged priest of the village of Modein. He slew a Jew who was offering sacrifice to heathen deities, and slew also the Syrian officer who was supervising. Then, taking with him his five sons, and onthered round he fled him in com-

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Thé even u. act was a desperate one, and a measure of success was rendered possible only by the internecine struggle for the throne which distracted the Syrians themselves. The work of Mattathias was twofold. He aimed not only at securing independence for Palestine, but also at stamping out heathenism, and punished those Jews who had deserted their faith. Mattathias, who was an old man when he commenced the revolt, soon died, handing on the leadership to his son Judas, surnamed Maccabeus, 'the hammerer,' from which his whole family has received the name of 'the Maccabees.' Judas was a great warrior and fervent believer in his cause, and hence was attended with considerable success. He defeated Apol-lonius, a prominent Syrian general, and followed this up by victories over Seron and Gorgias at Beth-horon and Emmaus respectively. Finally, he defeated Lysi at Beth-zur.

of his operations, and hence the Templewas fortified and re-dedicated. A new service of priests was set up and worship was restored. By this step a great victory was scored, not only over the Syrians, but also over the schismatic supporters of Hellenistic Judaism. But the Syrians still held the fortress of Acra, and hearing that they were hard pressed, an army stroyed. He further subdued the under Lysias and Antiochus Eupator Galileans and Idumeans. During his marched to their assistance. threatened to go hard with t

cabean army, which was being besieged in the fortified

when suddenly, in 162 B.C., sion was granted them to exercise their religion freely. Many of the Jews, even the most zealous for the,

circumcision and the observance of law, were now willing to settle the Sabbath, were strictly forbidden, quietly, but the Maccabes resolved while the Temple was dedicated to to continue the struggle for political Zeus and sacrifices offered there. freedom. The secular struggle was to freedom. The secular struggle was to be less successful than the religious, It began well, with the defeat and death of Nicanor near Beth-horon, but this was almost immediately followed by an overwhelming victory for the Syrians at Eleasa, in which Judas himself was slain. The leadership of the party, which was now scattered far and wide, fell to Jon-athan, the brother of Judas. An attempt was now being made by Bacchides, the victor over Judas, to secure order throughout the country, and accordingly Jonathan was able by skilful diplomacy to secure peace on favourable terms, ultimately being himself made high-priest in 153. In ke ag-143 Jonathan was slain in the quarrels for the throne of the Seleucidæ, and Simon, his brother, became leader of the Maccabean party. He fortu-nately espoused the cause of Deme-trius II., from whom he secured a recognition of Palestine's independ-ence (142). So famous a year was this that it was considered the beginning of a new Jewish era, and from it dates were counted and coins were dated. Simon, who was made high-priest in 141, was a wise and prudent ruler, and under him the country enjoyed comparative quiet, and in the one important conflict, that with Antiochus Sidetes, Simon was victorious. But there was still much scheming and party strife. Ptolemy, Simon's son-in-law, was striving to secure the supremacy, and as a step to this Simon was assassinated. But the crime gained Ptolemy nothing, for the power fell into the hands of Simon's ambitious third son, John Hyrcanus, who assumed the high-priesthood in 134 B.C., and with it the sovereignty. The reign of John Hyrcanus was outwardly most prosperous, though at the beginning he was hard pressed by Antiochus. Here perhaps he was saved by the influence of the Romans, with whom Simon had made an alliance, and with whom John Hyrcanus was continually in touch. Later in his reign (134-104) he extended the Jewish dominions considerably in all directions. The Samaritans were reduced and the 'Temple' on Mt. Gerizim was destroyed. He further subdued the ence of the Phari-

John was led to ith the latter of f that opposition period

On his

Israel

death, his son, Aristobulus I., suc-| while to Hyrcanus was left only the ceeded to the throne by the murder of his brother, and reigned but one year, during which he reduced the Ituræans. He was followed by Alexander Janneus, a warrior prince who almost entirely neglected his sacerdotal position. His chief aim was the extension of his territories, but he had also to contend against discontent at home. He was not at all popular with the people, and the whole strength of the Pharisaic party was against him. He nut down all was against him. He put down all revolts with inhuman cruelty, and continued his military expeditions. He ultimately met his death (76 B.C.) in a campaign against the Arabians. After his death, the high-priesthood fell to Hyrcanus, Alexander's eldest son, but all power remained in the hands of his mother, Alexandra, who accorded a much greater share in public affairs to the Pharisees. But Hyrcanus's younger brother, the Hyrcanus's younger brother, the energetic Aristobulus II., angry at his exclusion from a share in the government, raised an army and de-posed Hyrcanus. Then, as the supporter of Hyrcanus, there rises the figure of Antipater the Idumæan. This man induced Hyrcanus to place himself under the protection of Aretas, king of the Nabatæans, by whose aid Aristobulus was defeated. The Romans now took a hand in the struggle, and Pompey, in 65 B.c., sent his legate, Scaurus, to settle matters, which he did in favour of Aristobulus. This decision was reversed two years later by Pompey himself. Hyrcanus was made high-priest, but the government of Judga was attached to the Roman province of Syria. The Hasmonean dynasty, and the Sadducees who supported it, was by no means quiet, and in 57 an attempt was made to set Alexander, the eldest son of Aristobulus, on the throne. Alexander was taken prisoner by Gabinius, governor of Syria, and in order to break up what unity remained among the Jews the land was divided into five administrative districts. tobulus, who had been taken by Pompey to Rome, now escaped and raised a second ineffectual revolt in 56, and this was followed in 55 by a last attempt under Alexander, which was put down by Gabinius. In the next year Licinius Crassus visited Jerusayear Licinius Crassus 1510-1510 on lerature of the lem and plundered the Temple. On the outbreak of war between Pompey Old Testament (5th ed.), 1891; Bosand Cæsar, Aristobulus and Alexancia cawen's The Bible and the Monus der, who supported the put to death by the Pompey. On the death however, Hyrcanus m

Thus ended the high-priesthood. Hasmonean dynasty. Antipater also succeeded in making his cldest son. Phasel, governor of Jerusalem, and his other son, Herod, governor of Galilee. But the patriotic Jews viewed with horror this establishment of an Idumean dynasty, and set up Aris-tobulus's last remaining son, Aris-gonus, as his rival. Antipater was poisoned and Phasel committed suicide in prison, but Herod invoked the aid of the Romans, and in 37 secured Jerusalem. Antigonus was put to death in the same year. Herod carried on the difficult task of ruling Judgea by the aid of the Romans, and with the utmost cruelty. He gradually brought about the death of all those who were in any way connected with the Hasmonean dynasty, and did not even spare his own family, of whom many perished. He was a great favourer of Hellenistic culture and a great builder. Among other works of this kind he rebuilt the Temple at Jerusalem. On his death divided kingdom was tetrarchies, ruled respectively by his sons Antipas, Philip, and Archelaus, the last-named ruling Judga and Samaria. His rule, however, was so cruel and despotic that in the year 6 A.D. Augustus deprived him of his power and sent him into exile. His His tetrarchy was then attached to the province of Syria. Henceforward, except for the brief period from 41-44 A.D., Judma was under Roman procurators. During these few years it was ruled by Herod Agrippa, whose favour with Claudius secured to him all the territories over which his grandfather had ruled. On his death there was a period of dreadful anarchy and internecine strife between the inhabitants of Palestine, which was increased rather than lessened by the actions of the procurators, many of whom were in league with the worst of the freedoms. From the chaos there rises a fanatical party known as Zealots or Sicarii (Assassins). rose in revolt in the year 70, and a bloody struggle ensued, terminated only by that bloodiest of all scenes, the destruction of Jerusalem by Titus (A.D. 70). G. W. Wade's S. R. Driver's

Histoiredupeuple

it's History of the

however, Hyrcanus II 17; Wellhausen's mission to Casar. Antipater the Idu- Gesch. Israels, 1899; Kent and Riggs's mean then secured for himself the Hist. of the Jewish People; W. post of procurator of Judea (47 n.c.). Robertson Smith's Religion of the

Israels, Josef (1824-1911), a Dutch painter, was of Jewish parentage. For two years he worked in Paris under Picot, and soon afterwards he settled down at the Hague, which he made his home for life. It was during a convalescence passed in the fishingtown of Zandvoort that the poig-nancy of the poor's suffering and the tragedy of life were first vividly re-vealed to him: henceforth his pic-tures 'were painted with gloom and suffering, and became the most sensitive and artistic expression of his well of intense compassion for the distressed and weary of mankind.

I. has truly been called the Dutch Millet, although he emphasised the shadow rather than the light. Among his masterpieces are: 'The Zandvoort Fisherman,' 'Village Poor,' 'Shipwrecked,' 'Cradle,' 'When We grow Old,' 'The Widower,' 'The Bric-à-brac Seller, and Between the Fields and the Seashore. I. is one of the first of modern painters.

Israfil, or Israfeel, the angel of music, who, according to the Mohammedan belief, will sound the last trump from the Temple rock at

Jerusalem, calling men to judgment.
Issik-kul, or Issikul (Kirghiz, warm
water), a lake in Asiatic Russia, in the prov. of Semirietchensk, is 5000 ft. above sea-level, and covers an area of 2300 sq. m. It is fed by many streams, but the surface is contracting. water is salt, and contains a large

of Puy-de-Dôme, near the confluence of the Couze and Allier. Was captured by the Protestants and destroyed by the Catholics during the religious wars of 1574-77. It has manufactures of cotton goods and machinery. There is an interesting Romanesque Church of St. Paul. Pop. 5600.

Issoudun, a tn. in the dept. of Indre, France, on the Théols, 17 m. N.E. of Châteauroux, is the cap, of an arron. It has copper foundries, manufactures of parchment, cloths, and agricultural implements, and quarries of lithographic stone. Pop. about 14,000.

Issue: 1. In law, offspring or lineal descendants of any degree. In English law the term is peculiarly appropriate to the descent (see Inflemit-ANCE) or grant (q.v.) of real property, whether by deed or will. Before the Wills Act, 1837, a devise (f.c. grant by will) 'to A and his heirs, but if A die without issue, then to B and his

Semiles (3rd ed.), 1901; Graetz's heirs,' was construed to mean that Gesch. dcr Juden von den ältesten A's estate (q.v.) should descend to A's zeiten bis auf die Gegenwart (Eng. issue in tail (see ENTAIL), i.e. as long trans... abridged by the author), as I. remained, when the gift went 1891-92, etc. as I. remained, when the gift went over to B and his heirs. But the Wills Act expressly enacts that the words 'die without issue 'should be construed to mean die without I. construed to mean the without L. living at the death (i.e. of A in the above example) and not an indefinite failure of I. The Settled Land Act. 1882, made a further change, the effect of which is that as to testators dying after 1882, any child of A who has attained twenty one is free to re-tain or sell the land at his pleasure. 2. In the language of pleading means some definite proposition of law or fact asserted by one party and denied or 'confessed and avoided '(see Con-FESSION AND AVOIDANCE) by the other; concisely setting forth the points on which both parties desire the verdict of a jury or the judgment of a court. To 'join issue' means in effect to deny or traverse a proposition in the other property and the other property and the other property is a proposition. tion in the other party's pleading, upon which joinder no further pleading is necessary. Where the parties are agreed as to the questions of fact to be decided between them, they may, before judgment, by mutual consent, obtain an order from a master to go to trial upon such questions without formal pleadings, the question being stated in what is technically termed 'an issue.' The meaning of I. in Scots pleadings is not dissimilar.

Issus (modern Aisse), a tn. in Cilicia, near where that province adjoins Syria. Here Alexander the Great water is salt, and contains a large unflicted a crushing defeat on a huge quantity of fish. On the S. shore stands the town of Przhevalsk.

Issoire, a tn. in France, in the dept. queror's hands.

Issy, a tn. in Seine, France, 3 m. S.W. of Paris, forms part of the S.W. defences of Paris. It contains a school Saint-Sulpice, formerly the residence of Margaret of Valois. It manufactures silk and waxcloth, and has distilleries and chemical works.

19,000, Istakhr, an ancient city of Persia, was an extension of Persepolis, destroyed by Alexander the Great in 330 B.C.

Istambul, see Constantinople. Isthmian Games, were held Corinth, and were called after the Isthmus. They were originally a festival commemorating Melicerta who. after being hurled into the sea, was changed into a deity. Their celebra-tion dates back to 1326 B.c., but for some years they lapsed, and when Theseus re-instituted them he did so in honour of Poseidon. Later they were held every five years, and berased the proud city to the ground (146 B.c.). Huge crowds gathered from Asiatic as well as continental Greece to witness contests of every description, and the highest mead of honour was a pine-leaf garland or a

parsley wreath. Isthmus (Gk. iσθμός, neck), a term used in geography to describe a narrow neck of land joining two larger portions otherwise separated by the Thus the I. of Suez links together Asia and Africa at the head of the Red Sea; that of Panama connects N. and S. America, and that of Corinth the Peloponnesus with Northern Greece.

Istip, a tn. in what was formerly European Turkey, on the Bregainitsa, in the vilayet of Kossova. The in-habitants, chiefly Servians, number The inabout 20,000, and are engaged in

agriculture.

Istres, a tn. in France in the dept. shore of Etang de Berre, is 25 m. N.W. of Marseilles The hore of Mar of Marseilles. It has important sait

and soda works. Pop. 3000. Istria, a margravate and crown land of Austria, comprising a peninsula in the N.E. corner of the Adriatic him Sea between the Gulf of Trieste and tion. Veglia, Cherso, Lussino, and others, mouth of the Madeira, a trib. of the a total area of 1908 sq. m. The coast Amazon, has a thriving coasting is very rocky and broken by many trade in the products of the district; bays. Two-thirds of the population cocoa, spices, dried fish, and indiaare Slavs, and the rest Italians. chief industries are fishing, saltretrieving, and shipbuilding. Olive oil and wine are manufactured, fruits are cultivated, wheat, maize, rye, and oats grown, and cattle bred in large quantities. The local diet meets at Parenzo (12,358), but larger towns are Pola and Castua. After many are Pola and Castua. After many times changing bands, I, finally came under the dominion of Austria in 1813. Pop. 403,261.

Isturiz, Francisco Xavier de (1790-1871), a Spanish statesman, sided the magnesian limestone of Durham, with the nationalists during the The Brazilian Is. occasionally contain French invasion of 1808. A revolucrystals of diamond. tionist in principle, I. used his position as an elected member of the - confidence Cor In 1823 in

he rult, cabinet of ministers. His politics now 1881-1900 he directed the policy of led him to support the queen regent, the 'Jighto,' whose watchwords were From 1849-54 he was ambassador in 'liberty' and 'reform.'

came so sacred that they were not He entered the diplomatic service at omitted even when Mummius had an early age, and in 1878 was charged an early age, and in 1878 was charged with a mission to Pope Leo XIII... which resulted in the establishment of a Russian ambassador at the papal court. He then went to Tokio, and did much towards establishing amicable relations between the Russians and Japanese In 1993 he represented

the czar at years later w fill the positi Affairs. In

Balkan crisis, he took a prominent part in European politics, and in 1910 he was annual of the management of the management of the control of the management of the managem

refori man finest

writers, he revealed the charm and beauty of his language in The Exile of Sita, 1862. Soon after 1851 he became principal of the Sanskrit College of Calcutta, where he had earlier been a most distinguished student. The Act of 1856, permitting the remarriage of Hindu widows, was largely the outcome of his exertions. The British government constantly appealed to him as a leading authority on educa-

The rubber are exported.

Itacolumite, or Flexible Sandstone. a yellow sandstone of a porous nature found in Brazil. In the form of thin slabs, it is slightly flexible; a bar of it, when supported at its ends, bends into a curved form, but regains its original shape when the supports are removed. This is supposed to be due to the sand grains which form the rock not being firmly cemented together. In England, beds of flexible sandstone are found associated with

crystals of diamond. Itagaki, Taisūke, Count (b. 1837), a Japanese statesman, was prominent in the progressive movement which led to the overthrow of a feudalism not fit to long since antiquated. At Tosa he ar was a opened a school (the 'Risshi-sha')
In 1837—the where he taught his advanced and refugee in London. In 1837—the where he taught his advanced and date of his second return from com-enlightened political views. The party pulsory exile—he became president of patriots, 'Aikoku Kō-tō,' acknow-of the Cortes, and in 1846 of the ledged him as their leader, and from cabinet of ministers. His politics now 1881-1900 he directed the policy of

London.

Isvolsky, Alexandre Petrovitch, through Santa Catharina, and enters Baron (b. 1858), a Russian statesman. the Atlantic Ocean at Itajahy, a

Italian Architecture, see ARCHI-

TECTURE. Italian General Navigation Com-pany, the chief steamship line of the country, has its head offices in Rome. It controls 104 vessels, whose connage amounts to 224,338. It maintains regular services to the Mediterranean, to the ports of the La Plata and to New York, and to China and India. In 1901 it was formed by the cevition of Le Veleze formed by the coalition of La Veloce Navigation Italiana, and the Florio companies of Rubattino, Genoa, and

Palermo. Italics, letters of Italian origin, said to have been animitation of the handwriting of Petrarch. It was introduced by Aldus Manutius of Venice in the 16th century for the purpose of printing his projected small edition of the classics. The cutting of it was entrusted to Francesco de Bologna. The capitals are square Roman letters but the small letters are designed to imitate handwriting, even containing a large number of tied letters. Although the letters are not joined to each other in modern printing, the ligatures or connecting lines at the beginning and end of each letter are a prominent feature. It was introduced into England in 1524, and is used to distinguish words, sentences, or such portions as introductions and prefaces which do not properly belong to the work. It is generally used for foreign words occurring in English text, for quotations, and for words requiring special emphasis.

Italy, a kingdom in the S. of Europe. comprising the great peninsula which extends southwards from the Alps into the Mediterranean Sea, together with the islands of Sicily, Sardinia, Elba, and various small islands. The Alps form a great semicircular barrier which separates it from the continent of Europe, from France on the N.W., Switzerland on the N., and Austria-Hungary on the N.E. Its boundary on the W. is that portion of the Mediterranean known as the Tyrrhenian Sea, while its eastern shores are washed by the Adriatic. Its greatest length, measuring in a straight line from N.W. to S.E., is 710 m., its breadth ranges from 354 to 20 m., having an average breadth of about 90 m. The total area is estimated at 110,659 g.m. of which 01 277 ac. 110,659 sq. m., of which 91,277 sq. m. must be assigned to the kingdom of I. exclusive of large islands.

Northern I. is cut off from the rest is Monte Co of the peninsula by the Apennines, is Monte Co of the peninsula by the Apennines, is asso d'Ital which branch off from the Maritime to the gener Alps E. of Nice, and run in a straight south-easterly direction from the Umbria, Marches, and Abruzzi. The Gulf of Genoa to the Adriatic Sea. if the first named is watered by the Arno,

small port for the German colony The range then turns southwards of Blumenau. Cape Spartivento in the 'toe' of the peninsula, thus forming the backbone of Central and Southern I. It is convenient to consider the peninsula under these three divisions; Northern, under these three divisions; Nothern Lentral, and Southern. Northern Lembraces the provinces of Liguria (Riviera of Genoa), Piedmont, Lombardy, Venice, and Emilia. Lying between the Alps and the Apennines is the wide plain which forms the basin of the Po. This is shut in all round from Mentone to the Gulf of Trieste by the towering Alpine wall, Trieste by the towering Alpine wall, called from W. to E. the Maritime, Cottian, Graian, Pennine, Helvetian, Rhætian, and Carnic Alps. The highest point is the Gran Paradiso (13,652 ft.), a peak of the Graian Alps. The loftlest summits of the Alps are not included in Italian territory. To the S. of the Alps, in the N. of Lombardy and Venice, lie the beautiful Italian lakes, Lago di Garda, Maggiore, Como, Lugano, and Orto. The fertile plain of Lombardy, as already mentioned, is watered by the Po, which rises near Monte Viso, and is enriched on its way to the Adriatic by numerous way to the Adriatic by numerous tributaries and mountain torrents. The province of Venice, to the N. and E. of the Po, is traversed by the Adige, Brenta, Piave, and Tagliamento. Along the coast of the Adriatic, N. and S. of the Po delta, there exist large tracts of salt water, known selegating in a flat and mosthy disas lagoons, in a flat and marshy district. They are separated from the sea by narrow banks of sand in which are inlets, so that the lagoons serve as harbours. The chief of these is that in which Venice is situated. It extends over nearly 40 m. from Torcello in the N., Chioggia and Brondolo in the S. The other coast-line of Northern I. is formed by a narrow strip of land. closed in by the steep, abrupt rocks of the Apennines, and known as the Italian Riviera.

The geography of Central and Southern I. is mainly determined by the Apennine range, which extends for about 750 m. The culminating point of the border range between Northern and Central I. is the Monte Cimone (7110 ft.). The Apennines in Central I. are broken up into many short ranges The chief

(5590 ft. (7663 ft.), ft.), and Pizzo d culminating .

Cecina, and Ombrone, all rising in great differences in temperature and the Etruscan Apennines and flowing into the Tyrrhenian Sca. But the most important river of Central I. is the Tiber, the river of Rome, which is navigable for 90 m. The chief is navigable for so in. The chick lakes of this region are the Lago di Celano, and Lago Trasimeno, while the Lago di Bolsena, Lago di Vico, and Lago di Bracciano occupy cratershaped basins of extinct volcanoes. The volcanic tract extends from the Monte Amiata (5690 ft.) in Tuscany to Vesuvius (nearly 4000 ft.), a detached volcanic cone (active) in Campania. On the W. the Apennines slope down to the Pontine marshes, S. of Rome, which is connected with the Terra di Lavoro, the

Campania, and on the I broad Apulian plains. The of Southern I. are Campania, Apulia, Basilicata, and Calabria. The main ridge of the Apennines is continued due S. by the Monte della Maddalena, culminating in the Monte Pollino (over 7000 ft.). The low hills N. of the Gulf of Tranto, between the 'heel' and the 'toe' of I., are of Pliocene formation, while the Calabrian Hills are a broken limestone where the height rises to 3000 ft. in La Sila, a densely wooded granito mountain, the highest peak being Aspromonte (6420 ft.). The rivers of Southern L. are not of great importance. The Garigliano flows in a westerly direction into the Gulf of Gaeta, about 15 m. from the mouth of the Volturno. The Sele is a short river flowing into the Gulf of Salerno. The chief rivers which flow into the Gulf of Taranto are the Agri, Vasiente, and Bradano. The rivers of the E. coast are numerous, and are all short and rapid, the principal, S. of the Po, being the Foglia, Metauro, Esino, Chienti, Tronto, Sangro, Trigno, Tronto, Fortore, Biferno. Cervaro. and The coast-line along the Ofanto. Advintic is practically unbroken but for the promontory of Gargano. The islands of I.—Sicily, Sardinia, Elba, the group of Lipari Is., N. of Sicily, Giglio, Capri, etc .- are dealt with at length in separate articles. The harbours of the Adriatic are Venice, Barletta, and Brindisi, Bari; the large harbours belong to the western shore—Genoa, Spezia, Leg-horn, Civita Vecchia, Naples—and in the S. is the fine harbour of Taranto. The capital of I. is Rome, and its principal inland towns are Turin, Milan, Mantua, Parma, Modena, Bologna, Florence, Lucca, and Palermo (see separate articles).

atmosphere between Northern and Southern I. The plain drained by the R. Po has the most extreme cold, M. Po has the most extreme cold, while the Italian Riviera enjoys a warm, sunny climate all the year round. The Adriatic coast is exposed to biting N.E. winds, but Tuscany and Rome, and the greater portion of the rectant half of the protection of the western half of the peninsula, enjoys a mild winter and has a very hot summer. The rainfall during the summer months is slight, but there are heavy rains in late autumn. large portion of I. suffers terribly from malaria, the chief areas so affected including the marshes of Grosseto and Orbetello, the Roman Contine marshes, and tween the Gulf of

the Gulf of Taranto. Efforts have been and continue to be made by the government to mitigate the evil by improving the drainage and by combining agricultural im-provements with hygienic advantages.

In the northern plains of I. no plants and trees thrive which cannot endure the frosts of winter. Along the Riviera of Genoa the climate is extremely favourable for the growth of olives, oranges, lemons, date-palms, and citron trees, which are also found in great profusion in the S. The mulberry is grown extensively in Tuscany and elsewhere, and there are many vineyards on the lower slopes of the Apennines. The sugarcane, cotton - plant, prickly - pear, pomegranates all flourish in the in the warmer regions. In the forests and on the mountain sides are found the chestnuts, cypress, laurel, myrtle, oleander, arbutus, and evergreen oak. Agriculture is the chief industry of the country, about 70 per cent. of the total area of I. being under cultivation. The principal corn-crop is wheat. is estimated that 18 per cent, of the land is devoted to this production. The produce of wheat in 1911 was 104,724,000 cwt. Next in importance is the cultivation of maize (1911, 47,510,000 cwt.), which furnishes the staple diet of the people. Rice is grown extensively in the Po valley, and oats, barley, and rye are also valuable crops. The cultivation of grass and green forage is extensive, and in some districts as many as nine crops have been reaped from the same field in one year. The vineyards of I. occupy about 15 per cent. of the total area, and in 1907, 1,232,000,000 gallons were produced. The quality gallons were produced. lermo (see separate articles).

Climate.—The climate of I. is in general hot, but is tempered by its long coast-line, while on the uplands it is cool and pleasant. There are There is an increasing export trade

in live stock, and the large pro-duce of milk in the country gives rise to a large trade in cheese. The best known varieties of Italian cheese The are Gorgonzola, Stracchino, and Parmesan. A great variety of fruit is grown-oranges, lemons, figs, peaches, apricots, and prickly pear. Almonds are cultivated in the S. and in Sicily Sardinia, and hazel nuts, pistachios, walnuts, and chestnuts are among other products.
mulberry tree is cultivated The l account of its leaves which serve as food for silkworms. The breeding of silkworms is of great importance in the northern provinces of Lombardy, Piedmont, and Venetia, where silk is manufactured to a great extent in the large towns. Other important industries are the manufacture of thread, cotton, wool, chemicals, jute, glass, and ceramic wares. Machinery of all kinds is manufactured at Terni, Savona, Naples, and elsewhere. The manufacture of tobacco is a government monopoly. I. has also tanneries, breweries, paper-mills, straw-hat workshops, factories, engineering chemical works, etc. In 1908 26,787 vessels carrying 109,825 men were engaged in the fishing industry. The chief minerals found are sulphur, zinc, coal, iron, and lead. In 1909 there were 714 mines in operation, on which mines were engaged 50,587 persons. The chief imports are foodstuffs coal, iron, bidge makkers In 1909 stuffs, coal, iron, hides, rubber, and silk-cocoons. The chief exports are fruit (dried and fresh), wine, olive oil, hair, straw hats, worked coal, raw silk, cotton tissues, and silk tissues. The monetary unit is the lira of The monetary unit is the lira of \$100 centesimi; intrinsic value 1 franc, i.e. 25·22=£1 sterling. The coins in circulation consist of gold, 20-, 10-, and 5-lire pieces; silver, 5 and 2 lire; 1 lira and 50 centesimi; nickel, 25 and 20 centesimi; and copper, 10, 5, 2, and 1 centesimi. The construction of railways dates from 1840, when a line was opened from Naples to Castellammare. Now there are two main lines running the there are two main lines running the entire length of I. along both sides of the Apennines and connected with the lines of the northern plain, nor lines, the lines 10,618 m.

trol, while the minor ones are run by companies. The principal canals are in the valley of the Po, connecting Milan to the Po, Adda, and Tielno. The delta of the Po is so much obstructed with sand that navigation from the sea to the river is carried on by means of the three canals, Canale Bianco, Po di Primaro, and Po di Volano.

I. is a constitutional monarchy, in which the executive is vested in the king and the legislative power is held jointly by the king and parliament. The latter consists of a Senate, formed of princes of the blood and senators above forty years of age, who are nominated as life-members by the king (in 1911 there were 380 senators, including six members of the royal family), and of a Chamber of Deputies of 508 popularly elected members. Military service is compulsory for all male citizens for a period of nineteen years. The permanent army in 1911 consisted of 3,500,000, with about 734,000 in the reserves; while the mobile militia was numbered at 326,000, and the territorial militia at 2,275,631. The navy in 1911 included four dreadnoughts (all building), eight first-class battleships, ten armoured cruisers, and forty-six modern torpedo boats. During the latter half of the 19th century the Austrian War and colonial and military expenditure. outlay on public works, etc., were a great burden to the Italian government, the deficit for the year 1866 amounting to £28,840,000. The state finances have since considerably improved, but there is a heavy national debt, which, in 1911, stood at 508,471,651 lire. The revenue for 1910-11 was 2,684,873,689 lire, and the expenditure 2,574,463,776 lire.

Education, controlled by the state, is under a minister of public instruction, assisted by a council. Primary education is free and compulsory, and the state also maintains partly or wholly secondary, technical schools, and the universities. In 1910-11 there were 4017 students in the thirteen universities. Private schools may not be opened without state authorisation. The Roman Catholic Church is re-organised as the state church, but toleration is granted to all creeds. Over 97 per cent. of the population is Roman Catholic. By the Act of 1871 the rank of the pope as a sovereign prince is recognised, the Vatican and Lateran palaces and the papal villa at Castel Gandolfo having the privilege of exterritoriality. Protestants number about 66,000, which include some 22,000 Waldensians; and there are about 38,000 Jows, and about 2500 members of the Greek Orthodox Church. At the first general census (1871), taken after the unification of the kingdom, the population was 26,801,144. In 1811 thad increased to 28,459,628, and in 1901 to 32,965,504. In 1910 the population was estimated at 34,947,865.

For general statistics consult Annuario statistico Italiano; W. Deceke, Italy: a Popular Account of the Country, its People, and its Institutions (Eng. trans. by H. A. Nesbitt), 1904; Beauclerk, Rural Haly, 1888; King and Okey, Italy of To-day, 1901; Nathan, Vent' Anni di vita italiana Athaversoall' Annuario, 1906; Fischer, 1901:

49 B.C., confined to the narrow southern extremity or toe of the

peninsula, the district lying between

the gulfs of Squillace and Euphemia. During the republic the word was

applied to the whole country S. of the

Italia, Year-

Book, 1913. History.—The name of I. was, until

Apennines, and ultimately was used to include the whole of the peninsula. The early history of I. is inseparable from that of Rome, which is dealt with in a separate article. Under the wise administration of Augustus, I. was for the first time dealt with as a whole, and its unification thus gradually took place. Roman rule of the peninsula continued up to 476 when Odoacer, leader of the Herulian mercenaries, deposed the young Romulus, last Augustus of the Western empire, and placed the kingdom under the rule of Zeno, the Byzantine emperor. Odoacer, who had been pronounced 'patrician' by the emperor and 'king' by his soldlers, ruled in I. until he himself was conquered and deposed in 493 by Theodoric, King of the Ostrogoths. Theodoric was a wise and just ruler, and respected the ancient language, customs, and even laws of Rome, and chose his ministers from among the Roman population. But he was an Arian, and though he granted toleration to Roman Catholicism, at his death (525) the people of the S. wel-comed an invasion of Belisarius and Narses, sent by Justinian to reconquer the country. The Goths, however, continued to hold sway in the N. until after a long and bloody strife Teias, the last king of the Goths, fell in battle near Vesuvius (553). I. was now placed under an exarch, or governor-general, who ruled at Rayenna in the emperor's name. In of the so-called Italian emperors, had 568 the Lombards, who had been to contend with ambitious, self-seekemployed by Narses a swept down upon I. from the leadership of their Pavia was captured years' siege, and made the new kingdom. The Lombards German king of Saxony, Otto the spread S., and formed the two duchies Great, was called in by the enemies of Saxony and Jones of Spoleto and Benevento, but lacked the strength to occupy Rome, Ravenna, Venice, the islands of Sicily, overlord. Sardinia, and Corsica, and the important sca-towns, all of which were still held by the Fector or organization. still held by the Eastern conquerors. was deposed. I. being now considered The rule of the Lombards, who were as a flet of the German empire. Arians, was very oppressive, until About this time, when I. was

Gregory the Great (590-604) converted them to orthodoxy and established Rome as the rallying point of the old nation. There was no central power in I., so that when Leo the Issurian issued his decree against the worship of images (726), Gregory II., the champion of the native population, declared the Roman independence of the East, and for a time threw in his lot with the Lombard line. Hing Lindwood (712.44) King Liudprand (712-44) wished to impress his regal authority upon the bishops as well as upon his troublesome dukes and the Byzantine exarchs. He was resisted by Gregory's successors, who called in the help of the Franks. In 756 the Lombards were defeated by Pepin, who captured Ravenna, Pentapolis, and several cities in Romagna Spoleto, which he yielded to the pope. thus founding the temporal sove-reignty of the Roman Church. The conquest of the Lombards was completed by Charlemagne, Pepin's son, who deposed his father-in-law, Desiderius, the last Lombard king, in 774, and was crowned emperor of Romans in 800 by Pope Leo III.

The southern cities and Sicily still remained under the rule of the Eastern emperor, and were undisturbed by the Frankish conquest of the N. The Carolingian line ended in \$88 with the deposition of Charles the Fat. The following seventy-four years was a period of misrule and anarchy. Ten feudal nobles in succession were the nominal rulers of Northern I., but were totally unable to maintain order. The Greeks once more established themselves in Lombardy, and under the leadership of Catapan held sway in the S. till 1043. Before the end of the 9th century, hordes of Saracens began to overrun Sicily, Calabria, and Apulla, while in the 10th century the plains of Lombardy were laid waste by the invasions of Magyars and Northmen. The papal influence had declined, for the hely chair had become associated with infamous living and intrigues. Berengar II., the last of the so-called Italian emperors, had

3, as well as with countless bles who had established each within his castle, to resist any one who to curb their power. The

of Berengar, who was forced to pay tribute and colmorated Otto as his

a divided country, governed by foreigners from a distance, the Lombard cities of Milan, Pisa, Genoa, Venice, and Florence began to rise in power and to gain some degree of independence. They built walls to protect themselves from barbarian invaders; they shook off the despotism of the petty counts; and the eastern trade, which had been enjoyed by the cities of the S. prior to the Saracen invasions, now came into the Saracen invasions, now came into their hands. The Saxon emperor encouraged this spirit of municipal independence, which crushed the power of the turbulent counts. Morcover, the vicious lives of the recent popes had given rise to such scandals that Otto determined to put a stop to the otto determined to put a stop to the disaffection in Rome, and, taking the power of election out of the hands of the Romans, himself appointed a pope. His son and grandson, Otto II. and Otto III., however, had not his powers of discipline, and on the death of the latter in 1002 Ardoni, Marquis of Ivrea, claimed the crown and was supported by Lomberdy and Payis of Ivrea, claimed the crown and was supported by Lombardy and Pavia. The Saxon dynasty, however, continued in Henry of Bavaria, who gained the alliance of Milan, and crushed her rival, Pavia. On Henry's death in 1024, Heribert, Archbishop of Milan, offered the crown to Conrad, the Eraconian king of German, the Franconian king of Germany. During this century there should be noted the gradually increasing power of the commune, a word first used in connection with Milan. The citizens of that city united in a parlamento, and were supported by Heribert, to whom is also attributed the invention of the carrocio-the car, bearing the standard of the burgh, and an altar with the host, which was carried into battle like the ark of the Israelites.

The Saxon policy of interference in the papal election was followed by Conrad's successor Henry III., who, finding three popes in Rome, finding three popes in finding three popes in Rome, abolished them all, and bestowed the see on a German bishop of his own choosing. During the minority of his son, Henry IV., who succeeded him in 1056, Archdeacon Hildebrand of Soana, afterwards Pope Gregory VII., threw his energies into strengthening the power of the manacy. He daterthe power of the papacy He determined to throw off the yoke of the German Emperor and the Tusculan counts by enforcing the celibacy of the clergy, by abolishing the in-vestiture of ecclesiastics by secular authority, and by vesting the papal election in the hands of the Roman people under the guidance of the clergy. During the assuing faction

Calabria, and Sicily, and had strengthened their hold on these dominions by obtaining papal in-yestiture of lands which they agreed to hold as fiefs of the Holy See. In 1084, when Henry IV. seized Rome, Pope Gregory was relieved by Guiscard and retired to Salerno, where he died in 1085. Gregory had where he died in 1985. Gregory had had also a powerful ally in Countess Matilda of Tuscany, who bequeathed her vast possessions to the papacy (1115), which later helped to consolidate the temporal power of the church. Henry IV. died in 1106, but the War of Investitures was continued by his successors, and ended in the Concordat of Worms (1122), whereby the emperor abandoned his authority over papal elections.

For many years the reins of power were held very slackly in the hands of Lothar, the Saxon (1125-37), and Conrad, the Swabian (1138-52). The courad, the Swabian (1138-52). The latter, in fact, never set foot in I. at all. During this period the northern cities waxed strong, and waged war upon each other. Each city was single republic; the bishops were superseded by consuls, who, assisted by a council of burghers, administered the law. Rome short of for a time the law. Rome shook off for a time the sway of their bishop, and under Arnold of Brescia established a republic with a senate on the lines of ancient Rome. On the death of Conrad, his nephew Frederick, sur-named Barbarossa, was elected em-Under his rule the old feud peror. between emperor and pope was re-newed. He crossed the Alps in 1154, determined to exercise his imperial rights and to put an end to the war-fare of the cities. Milan at once rose up in arms against him, but Frederick. after laying waste some smaller cities, marched on Rome and was crowned by Adrian IV. (Nicholas the only pope of He then returned Breakspear), English birth. to his own country, while Milan punished Pavia for having supported him. In 1158 Frederick marched upon that rebellious city and forced it to surrender. But in 1159 Milan was again in revolt, and after a lengthy siege was laid waste and the inhabitants driven from their wrecked houses (1161). Frederick did not set up his own officials (podestàs) in the more important towns. This action caused them to bowns. This action caused them to bury their grievances and fealousies, and unite in one league, called the League of Lombardy, against their foreign ruler. They built a new city, which they named Alessandria, after their terms of people under the guidance of the loreign ruler. They duit a low dot, clergy. During the ensuing faction which they named Alessandria, after between pope and emperor, Gregory their staunch ally Pope Alexwas supported by Robert Guiscard and his son Roger, Norman advendance of the divention. The sturers who had occupied Apulia, city was established between Pavia

the imperial troops. withstood a siege during 1174-75. and in 1176 the allied forces inflicted a crushing defeat upon Frederick at the battle of Legnano. In 1177 the emperor made terms with the pope for a six years' truce, and in 1183 a permanent peace was ratified by the treaty of Constance, which granted to the Lombard towns the right of war and self-government, while the emperor retained his supreme courts of justice within their walls and his right of sustenance at their expense for the imperial retinue and troops. During the short reign of Frederick's successor, Henry VI., the strife between Guelphs and Ghibellines broke out in I. In Germany it had stood for a quarrel between two rival dynasties. but in I. the Guelphs represented the papal party, i.e. Rome and the League of Lombardy, while the Ghibellines stood for the imperial party. The pope's quarrel with Henry was due to his marriage with Constance, heiress to the Norman dynasty in Sicily. On Frederick's death (1190), Henry laid claim to the whole of I. and the two Sicilies, his claim being acknowledged in 1194. Ho died three years later, and his wife, who died in 1198, left their infant son to the guardianship of Innocent III. During Frederick's long minority, the power of the pope extended as far as Constanticomposed as far as Constanti-nople at the time of the fourth Crusade (1198-1204). The spoils of war were shared with Venice, who had volunteered her fleet for the transport of men. Thus Venice became established as one of the most powerful commercial cities of the Mcditerranean. In 1220 Frederick II. was crowned king and emperor, the virtual ruler of Germany, I., the Sicilies, and Jerusalem. He made a determined effort to crush the league and subdue the pope, but, powerful though he was, the powers pitted against him were too strong. In 1237 he defeated the Milanese at Cortenuova, but was harassed throughout his reign by plots and intrigues. Pope Gregory IX. excommunicated him in 1227, and Innocent IV. declared him dethroned at the council of Lyons in 1245. He died in 1250, and was succeeded in Sicily by his natural son Manfred, who, after some brief

and Montferrat, the stronghold of by the pope, and five years later Alessandria made a public recognition of pope's temporal sovereignty Emilia. Romagna, the March Ancona, the Compagna of Rome, and the Patrimony of St. Peter, i.e. in the papal states. The Guelphic party was now supreme in the N., but lost much of their influence in the S. when Sicily rebelled against Charles of Anjou and placed itself under Aragonese rule (1282). At the end Guelphs of the century the Florence were divided into two factions-the Neri and the Bianci. 1300 Boniface VIII. called in Charles of Valois, who banished the latter faction and then undertook to manage the affairs of the republic. In 1309, the pope, Clement V., being a Frenchman, the seat of the papacy was transferred to Avignon, where it remained till 1377.

This period of nearly seventy years was marked by great com-mercial prosperity. The rich burghers lived in solid prosperity. The northern towns still made war upon one another, but the burghers paid companies of adventurers, condottieri, to do the fighting. The rural counts lost their power and became citizens of the towns, and the office of podestà was now practically that of a judge. In many towns his place was taken by a new functionary, the captain of the people, who was a leader of Guelphs or Ghibellines, whichever party was in the ascendant, and whose powers, being ill-defined, tended to become unlimited. During 14th century five principal ers came into evidence and powers divided the peninsula-the papacy, the kingdom of Naples, the duchy of Milan, the republic of Florence, and the republic of Venice. Genoa struggled for over thirty years with Venice for the supremacy of the Mediterranean, but was crushed by the end of the Chioggia War (1381), and Pisa's maritime power was ex-tinguished in the battle of Meloria (1284). The two Sicilies, which had the death of Joan II., the last of the Aragon on the death of Joan II., the last of the Angevin line in Naples (1435). His reign, which lasted for twentythree years, was one of undisturbed prosperity and peace. He was succeeded in Naples by his natural successes, was deposed by Charles of son Ferdinand, and in Sicily and successes, was deposed by Charles of son Ferdinand, and in Sicily and Angon by his brother John. In the by the was sti Italian potentates by the removal of radin, grandson of Frederick II., but in 1266 he was defeated and beheaded at Naples, the Swabian line thus the temper of the times was shown coming to an end. In 1273 Rudolph in the brief republic (1347-54) set of Horseburg was growned emperation in the city by Blory or semiof Hapsburg was crowned emperor up in the city by Rienzi on semi-

classical, semi-feudal lines. succeeded by his uncle, the famous Archbishop Gian Visconti (d. 1354). Under this powerful prelate the duchy gained a conquest over Genoa and a large portion of Northern I. His grand-nephew, Gian Galeazzo, extended his domains to the borders of Venice and of Florence. In 1402 of venues and of Fiorence. In 1402 his son, Filippo, succeeded to the title and the power, but though he was an ambitious prince, he had not the ability to carry out his father's schemes of foreign conquest. The duke died in 1447, and for a brief period the ancient republic of Milan was reactablished. But in 1450 was re-established. But in 1450 Filippo's son-in-law and general. Filippo's son-in-law and general, Francesco Sforza, seized the Viconti's possessions with the aid of his Florentine ally, Cosimo de' Medici, and proved himself to be a wise and liberal-minded ruler. He curbed the cupidity of his subjects for foreign conquest, thus securing the balance of power in Northern I. Until 1343 Florence had been subject to an adventurous foreigner, Walter of adventurous foreigner, walter of Brienne, Duke of Athens. For the following hundred years, with the exception of a short-lived revolution of artisans, the city was governed by an oligarchy headed by the Albizzi family. During this period Florence achieved the subjection of Pisa and extended her domains in Tuscany. But the oligarchy was Pisa and extended her domains in Tuscany. But the oligarchy was opposed to the wealthy and democratic family of Medici. In 1434 Cosimo de' Medici established a republic of which he assumed the presidency. He strengthened his position by making the alliance with Francesco Sforza mentioned above. The presidency maintained by Cosimo The presidency maintained by Cosimo became a dictatorship under his grandson, Lorenzo the Magnificent. The history of Venice was very different from that of the other great Italian states. In the 11th century the administration lay in the hands of the popular representative, the doge. After a series of revolutions, however, the oligarchical principle was established, and in 1311 the Council of Ten was formed. Venice, while extending her commerce and Spain,

classical, semi-feudal lines. The dominions in the maintain and duchy of Milan was governed by the capture of Constantinople (1453) powerful Visconti dynasty till 1447, necessitated the strengthening of her The city was bought from Louis of position at home to keep off the Bavaria in 1328 by Azzo, who was attacks of the Turks. The need of The dominions in the mainland. The confederation was great, and Pope Nicholas V. proposed that the five powers should unite against their common foe, but the danger not being imminent, his appeal was disregarded. I. was now divided into a number of commonwealths. One and all governed by an oligarchy or an Italian prince, but the individual enjoyed liberty, and every encouragement was given to the common enthusiasm for literature and art

which the renaissance had awakened.
Peace lasted till 1494, when a new
age opened for I. Throughout the
following century the country was
a battlefield on which France and Spain fought out their quarrels and strove for new conquests. In 1494 Charles VIII. of France invaded I. at the request of Lodovico Sforza, who was anxious to become Duke of Charles, after having the Milan. Medici expelled from Florence, marched S. and was crowned in Naples. In the meantime Lodovico assassinated his nephew, Gian Naples. In the lactuation of assassinated his nephew, Gian Galeazzo, and raised Lombardy against Charles, who with difficulty made good his retreat to France. The way was now opened up to other invaders. In 1499 Louis XII., the successor of Charles, subdued Milan, but his hopes of conquest in Naples and Sicily were frustrated by his false friend, Ferdinand the Catholic, who made himself supreme over the two Sicilies. In 1504 Louis invited the Emperor Maximilian to assist him in the conquest of Venice. In the confusion the papacy made a most determined and successful defence against the foreigners. The ambitious and self-seeking prelate, Alexander VI., extended his personal domains in Central I.; his powerful successor, Julius II., was determined to reinstate the temporal sovereignty of the Church. This he attempted to do by playing off the different parties against cach other, thus hoping to weaken all. In 1588 he formed the League of Cambrai with France, Spain, and Germany against I., and in 1512 he combined the forces of Spain, Venice, and Switzerland grainst. while extending her commerce and malding territorial conquests in the Beast, did not take much part in Italian affairs. In the middle of the 14th century she began her struggle The French returned, however, in a for maritime supremacy, which few years. In 1515, their new king, endled in victory (1381). In 1406 Francis I., was victorious at the Venice added Verona, Vicenza, and Padua to her Italian possessions, and during the long dogeship of Frant the troops of Emperor Charles V., cesco Foscari (1423-57) extended her who had succeeded to the crown of

 Spain and Lower I. At the battle of local autonomy was allowed. Her Pavia (1525) Francis was taken successor, Joseph II., instituted prisoner. For seven months of 1527 wider reforms, but his administration the imperial troops, composed of

wars ended (1529), by

which Charles V. was left in possession of I. In 1537 the French took possession of the territories of the dukes of Savoy, but these were ceded to Philip, the son of Charles V., by the treaty of Cateau-Cambresis (1559). Venice, Genoa, Lucca, and Marino were allowed to retain their independence.

Until the end of the 18th century it may be said that I. now ceased to have a history of her own. Wars in which she had no interest, but was the patient sufferer, continued to be fought on her soil. Venice regained some of her lost power by the conquest of the Peloponnesus (1684), but this was recaptured by the Turks in 1715. Piedmont was ceded by Spain to Emmanuel Filibert, who regained Savoy and Nice. The War of the Spanish Succession (1701-13) led to a redistribution of Italian land. By the treaty of Utrecht (1713) Austria succeeded to the Spanish dominions, and Sicily was given to Victor Amadeus, Duke of Savoy, with the title of king. In 1720 he had to yield that island to Austria in exchange for the kingdom of Scadinic Livre for the kingdom of Sardinia. I. was subjected to a further redivision at the end of the War of the Austrian Succession. By the treaty of Aix-la-Chapelle (1748), Milan, which had been captured by Austrians in 1714, was ceded with Tuscany to the House of Austria; the Bourbon, Charles was confirmed in his kingdom o

two Sicilies; his brother, Don Pi was given the duchy of Parma; Pied-mont and Sardinia remained in the most and Sardinia remained in the kingdom was formed for Austria; hands of the house of Savoy; and Modena and Genoa were placed under given to the Austrian princes, Ferthe protection of France, to whom dinand III., Francis IV., and Maria the Genoese surrendered Co the Genoese surrendered Co 1755.

For forty-four years I. Tuscany was ruled by lieutenants until the death of Francis I. in 1765, when his second son, Peter Leopold, afterwards Emperor Leopold II. (1790), was made grand dukc. His rulo was characterised by its agricultural improvements, suppression of the Inquisition, and wise reforms. He performed a lasting benefit to his subjects by draining the Val di Chiana. The rule of Maria Theresa in Lombardy was also re-membered as a period of internal prace. Programment was given

was not so popular. A large portion of I. suffered under the harsh despotism of the Bourbons. Whether prosperous or oppressed, divided up among several princes, and had no feeling of nationality.

The chief event after the treaty of Aix-la-Chapelle was the invasion of I. by the French Republican armies in 1796. In the following year the Emperor, Francis II., was forced to sign the treaty of Campo Formio, by which Venice and the territories N. of the Adige were given to Austria. and the rest of Northern and Central I. was divided up into republics, such as the Cisalpine, Tiberine, Ligurian, Cispadane, and Parthenopæan re-publics. The great cities were filled with a wild hope of liberty, but they soon discovered that their freedom was but nominal under the presidency of Napoleon Bonaparte. the Russian troops gained a victory at Trebia, and in 1800 Napoleon crossed the Alps and confirmed his previous victories at the battle of Marengo. The Cisalpine republic was declared, the *Italian* republic in 1802, and Napoleon was crowned King of I. at Milan in 1805. In the following year Napoleon made his brother, Joseph, King of Naples, and gave Tuscany, Lucca, and Piombino to his sister, Eliza (1809). Eugène Beauharnais was left in charge of affairs as vicercy, but the repeated attacks of the Austrians in 1813-14 weakened his power, and at the overthrow of Napoleon in Paris (1814) the kingdom pieces. At the (1815) the allies

country among themselves. The Lombardo-Venetian mmanuel I..

two Sicilies were restored to the Bourbon, Fer-

dinand II., and the pope was left in possession of the papal states. The result of the Napoleonic in-vasion of I. was that the rule of the petty princes was more oppressive than ever, but national pride had been aroused and had given birth to a great hope for the future unity and self-government of the whole country. Secret societies, the most important of which was the Carbonari, flourished among the educated classes; riskings broke out in the S. (1820); and in to remain the control of the control

zini, organised a political society called Giovane Italia (Young Italy) for the emancipation of his country. He hoped that the new king of Piedmont. Charles Albert, might be induced to make war upon Austria, and thus liberate I. When Charles Albert refused to do any such thing, Mazzini made a futile raid on Savoy, which resulted in many of his followers being barbarously put to death. Mazzini came to London, from which, by means of literature, he actively propagated his republican theories among his countrymen. The more moderate Liberals, as is shown in the writings of Leopardi and Foscolo, despaired of the future of I. In 1848, the year of revolutions, insurrections broke out in Lombardy, the Austrians were driven out of Venice, and Sicily re-volted from Ferdinand. Charles Albert won some minor successes, but before the end of the year the Austrians won the battle of Custozza, and placed the country under martial law. Pope Pius IX., who since 1846 had passed certain measures of reform, was torn asunder between his desire to support Italian freedom and his fear of making war on Catholic Austria. His authority, in consequence, weakened daily; he was declared traitor, and fled in disguise to Gaeta. Mazzini hurried back to Rome, and a republic was set up with him and two triumvirs at its head. In 1849 Charles Albert received a crushing defeat from the Austrians under Radetzky, and abdicated at Novara, leaving his son, Victor Emmanuel II., to make the terms of treaty. Lombardy reverted to Austria, and a part of the Piedmontese territory was also ceded. In the same year Leopold and Ferdinand. the same year Leopoid and Ferniand, who had joined the pope at Gaeta, returned to take up the reins of government now that the insurgents were quelled. France decided to restore Rome to the pope and sent General Oudinot to besiege the city. He was defeated at Civita Vecchia by Garibaldi, recently returned from exile in S. America. The Neapolitans, augmented by Spanish Soldiers Spanish augmented рх soldiers. augmented by Spanish soldiers, marched northwards, and were also defeated by Garibaldi at Palestrina and Velletri, but in spite of these successes the French troops succeeded in entering Rome, and the pope returned in 1850. Meanwhile Daniel Manin had been bravely holding Venice against the Austrian army; but being blockaded by land and sea, the city was reduced by famine and the city was reduced by famine and surrendered.

The desire for a united I. increased yearly, and Victor Emmanuel II. was

flery young patriot, Giuseppe Maz- was badly disorganised, and the zini, organised a political society recent war had emptied the exchequer. At this time of despondency, almost of despair, Cavour came into prominence as the champion of the national movement. In 1852 Victor Emmanuel appointed him prime minister. The Società Nationale was formed, with the motto Unity, Independence, and Victor Em-The king and Cavour manuel.' secretly encouraged the movement, though their only avowed aim was to expel the foreigner out of I. In 1858 Cayour entered upon negotiations with Napoleon III. which resulted in the outbreak of a Franco-Austrian War (1859). In the same year the Austrians were defeated at Montebello, Palestro, Magenta, and Sol-ferino; provisional governments were established in Florence and Modena; and an insurrection broke out in the and an insurrection broke out in the Papal States. Without consulting his Italian allies, Louis Napoleon made a treaty with Austria in July, by which Victor Emmanuel had to surrender Savoy and Nice. This peace was followed by great agitation among the Central States of Lombardy, Romagna, Tuscany, Modena, and Parma, which in 1860 declared themselves annexed to Sardinia. S. Italy now rebelled against Francis II. the son rebelled against Francis II., the son of Ferdinand, and was assisted by Garibaldi, who won victories at Calatifimi and Melazzo. Assuming Assuming the title of dictator, he entered Naples in Sept. 1860, Francis having fled. The united troops of Garibaldi and Cavour defeated the Papal States at Castelfidardo, and the Neapolitans at the Volturno. Sicily and Naples were annexed to Sardinia in October, and Garibaldi hailed Victor Emmanuel as 'King of Italy.' In 1861, at the assembly of the first Italian parliament in Turin, Victor Emmanuel was decreed King of I., and Garibaldi resigned from his dictatorship. In this same year Cavour died. Rome wasstill held by the pope, and the Austrians were in possession of Venice. In 1862 Garibaldi raised troops to liberate Rome, but was defeated at Aspromonte, and Roman Catholic opinion throughout Europe was opposed to the annexation of Rome to the new kingdom. French troops had held that city since in 1849. By the Franco-Italian Convention of 1864, the French agreed to evacuate Rome within two years, on condition that the Papal States were recognised, and the capital of I. was moved from Turin to Florence. At the outbreak of the Austro-Prussian War (1866), I. formed an alliance with Prussia, and although Garibaldi and his volunteer regarded as the hope of the national troops were defeated at Monte Suello cause, but the Picdmontese army and the Italian troops by sea at Lissa. and the Italian troops by sea at Lissa'

and on land at Versa, when peace was signed Austria abandoned Venice. which the king entered in triumph on Nov. 7, 1866. In 1867, in spite of the agreement of 1864, Garibaldi made several attacks on Rome, and consequently Napoleon sent back who defeated the Garibaldians at Mentana. Rome continued to hold out until 1870, when, during the Franco-Prussian War, the Italian army under General Cadorna, after a brief resistance, entered the city. 1871 Rome was inaugurated as the capital of the kingdom, but the pope, Pius IX., refused to abandon his temporal sovereignty, and withdrew as a voluntary prisoner to his own domains, which were allowed the

privilege of exterritoriality. The consolidation of I., since the formation of the kingdom, has been slow and difficult, owing to the great social differences between N. and S. I. has, too, been ambitious to be recognised as one of the great powers of Europe, which involves a vast outlay in expenditure. In 1878 Victor Emmanuel died, and was succeeded by Humbert I. (b. 1844); Pius IX. being succeeded by Leo XIII. in the same year. Humbert's reign was characterized. characterised by electoral reform (1881)foreign and colonisation. Somaliland, along the N.E. coast of Africa, was acquired between 1880 and 1890, and the dependency of Eritrea was founded in 1882. I.'s Eritrea was founded in 1882. claims to a protectorate over Abyssinia led to war, which ended in an Italian defeat at Adowa (1896), and the restoration of all land to Abyssinia. sinia by the treaty of Adis Abeba (1896). In 1883 I. entered the Triple Alliance with Germany and Austria, largely owing to her distrust of France. In 1900 King Humbert was assassinated by an anarchist, and was succeeded by his only son, Victor Emmanuel III. I. did not take any part in the expedition of the Powers to China after the Boxer Rising (1900), but by the treaty of 1902 acquired a small area of land (20 sq. m.) on the l. b. of the Peiho. In 1904 there was serious disorder in the N. owing to a general strike, and in 1905 and 1906 there were terrible earthquakes in the S. which caused great distress. At the beginning of the new century I. entered upon more friendly relations with France, the Triple Alliance being still maintained. In the recent dissensions in Morocco (1906-11) she gave her support to France against Germany, while France has quiesced in Italian ambitions in quiesced in Italian ambitions in Tripoli. In Sept. 1911 war broke out between I. and Turkey in connection with the rights and privileges of Italian subjects in Tripoli. In

November of the same year the Italian government formally proclaimed the annexation of Tripoli and Cyrenaica, which was ratified by Turkey in the treaty of Ouchy in Oct. 1912. In the Balkan War (1912-13) I.'6 sympathies have naturally been with the allies against her recent enemics; the royal family, moreover, is connected with that of Montenegro, Queen Elena of I. being the daughter of King Nicholas of Montenegro.

Consult Bury, Later Roman Empire, 1889; Hodgkin, Haly and her Invaders, 1892-99; Muratori, Rerum Italicarum Scriptores (25 vols.), 1723-51; Gregorovius, History of the City of Rome in the Middle Ages (Eug. trans. by Hamilton), 1895-1900; Archivio storico Italiano (vols. i.-xvi.), 1838-51; Milman, History of Latin Christianity, 1840; Burckhardt, The Civilisation of the Renaissance in Italy, 1892; Symonds, The Renaissance in Haly, 1875-86; C. Cipolla, Storia delle Signorie Italiane dal 1313 al 1530, 1881; Creighton, History of the Papacy during the Reformation (new ed.), 1897; Ranke, History of the Papacy during the Reformation (new ed.), 1897; Giuseppe Ferrari, Rivolucioni d'Italia, 1858; G. de Castro, Storia d'Italia dal 1797 al 1814; Alsal; P. Ganfarci, Bonaparte et les républiques italiennes, 1796-99 (Paris, 1895); R. M. Johnston, The Napoleonie Empire in Southern Italy (2 vols.), 1904; Bolton King and Thomas Okey, Italy To-day, 1901; and Orsi, Modern Italy (Eng. trans.), 1900; Chas, Capworth, Tripoli and Young Italy, 1912.

Language and literature:—Italian

Austria, is one of the Romance, or Neo-Latin, is one of the Romance, or Neo-Latin, languages, and is a sister-tongue of twas succeptored in the Roman of the Roman of the Roman of the Roman of the Roman, and Provencal. It is naturally more closely connected than any of these with Latin, the language of the Romans, the influence of the Romans and Influence of the

the Caix, c dci dialetti d'Italia, 1872. See also Mor-due to the great religious movement andi, Origine della lingua italiana brought about by the establishment (5th ed.), 1891; Ascoli, Archivio of the Franciscan and Dominican Archivio (5th ed.), 1891; Ascoli, Archivio glottologico italiano, 1873 et seg.; Fornaciari, Grammatica storica della lingua italiana, 1872; Petrocchi, Novo dizionario della lingua italiana, 1884-91, which is wholly in Italian; and the Italian-English, English-

Italian dictionary of Edgren, 1902. No very early documents of Italian literature exist, for the tradition of writing in Latin lingered long, and, moreover, Latin did not differ so much from the vulgar speech as to be much from the vulgar speech as to be phonally as a penance. These and unintelligible. The influence of the similar liturgical compositions are Teutonic invaders upon the speech of the race they subjected does not that I. possesses. The earliest speci-appear to have been very great. A mens of Italian prose date from the much more powerful and lasting influence was that of the French and Provencal troubadours who wandered across the Alps as early as the 11th century and sang their songs of love and war throughout the peninsula. In the early 13th century there grew up round the court of Frederick II. (1194-1250) in Sicily an Italian school of poets who closely imitated the Provencal lyrics both in style and Chief among them were Frederick himself, and his son Enzio (d. 1272), Piero delle Vigne (d. 1249), and Giacomo da Lentini. But their art was wholly imitative, conventional, artificial, and consequently short-lived. In the latter part of the 13th century the Tuscan tongue came into prominence. Tuscary had this rectoris, by Fra Paolino, and De regiment advantage over the rest that its lingua volgare, the familiar speech of the 14th century, called Trecento, is the age of a mighty trio—Dante, Petrarch, and Boccaccio. Hitherto, poets and written had a maximum and the property of the petrarch, and Boccaccio.

dialect which could be understood by the generality of their countrymen. Siculo-Provencal poetry imitated by a small Tuscan school, which, with Guittone d'Arezzo (1215-94) at its head, included the humordoned the Provencal chivalric forms, natura d'amore is a poem on the and wrote political poems. His great pupil, Guinicelli (d. 1276), wrote phi cal lyrics, which are inte rather than imaginative, but great development in the his Italian poetry. A contempt becomes a his was Brunetto Latini (d. 1294), the friend and master of Dante. His meeting with her the whole aspect of the allegorical poems, such as Le the theme, also, of the Canzoniere. Roman de la Rose, which had become His work culminated in the Divina the advanced the respect of the contempt of the co the development of poetry was largely regarded as the dictator of literature,

brought about by the establishment of the Franciscan and Dominican orders. To St. Francis of Assissi (1182-1226) has been attributed the Cantico del Sole, a hymn written in rhythmical prose. The greatest exponents of religious poetry at this time were Jacopo dei Benedetti da Todi and Raniero Fasani. The work of the latter is of no artistic value, but is important as marking the growth of the drama. His Laudi were written in dialogue form, and were sung anti-These and the earliest form of religious drama mens of Italian prose date from the middle of the 13th century. The Cento Novelle Antiche was probably written by a Florentine. It is a collection of short tales drawn from Oriental, Greek, Trojan, and medical sources. Francesco Barberino included similar stories in his Del Reggimento e dei costumi delle donne. The letters of Fra Guittone d'Arezzo, on moral and religious subjects, are interesting specimens of the lingua volgare. In addition we have a number of translations and adaptations of French romances and Latin historical ascetic treatises, an original scientific work on astronomy and geography called Composizione del mondo, by Ristoro d'Arezzo; and treatises on government, De regimine

poets and writers had experimented in various dialects, and Tuscan had been proved to surpass the others. The great writers of the 14th century were all Tuscans, and by their use of it made the Tuscan dialect the ac-knowledgedliterary medium of speech ists and satirists Folgore of San in I. for all time. Dante's immediate Gimignano, Cene della Chitarra, and Rustico di Fillipo. Guittone aban-Guido Cavalcanti, whose Sulla Sulla

school be-1265-1321), poets, who Homer and Nuova he

nomina de la 1695e, which had become His work culminated in the Divina popular throughout Europe. Under Commedia, a transcendental poem the same influence was Francesco de of incomparable beauty. Francesco Barberino (1264-1348). In Umbria Petrarca (1304-74) was at the time

and his love for Laura has remained | Petrarch, and Boccaccio, there was a as an inspiration to all succeeding poets of every nationality. But he must not only be studied as the writer of beautiful love-lyries, but But he also as the first humanist in I .- the forerunner of the revival distinguished by an enthusiastic study of ancient classic literature. Giovanni Boccaccio (1313-75) had the same zeal for re-search into the works of antiquity as is testified by his encyclopædic works in Latin on diverse subjects—De genealogia deorum, De casibus virorum illustrium, De claris mulicribus, etc. His narrative poems, Tescide, Filostrato, and Ninfale fiesolano, are far more successful than his lyries, while his Amorosa Visione shows the influence of Dante. His fame rests mainly on the Decamerone, a collection of a hundred novelles, which are arranged and told with the skill of an artist who is at the same time an observant and sympathetic man of the world.

These three great writers had These three great writers had many imitators. Among Dante's followers must be numbered Francesco Stabile, called Cecco d'Ascoli (1269-1327; L'Acerba), Fazio degli Uberti (Dittamando), Federigo Frezzi (Quadriregio), whose works are chiefly of historical interest to the student. Novel writing had already attained great popularity in France and other countries. The example set by The example set Boccaccio was now closely followed by Giovanni Fiorentino (Pecerone, 1378), Franco Sacchetti (d. 1399), a moral writer on immoral subjects, and Giovanni Lercambi of Lucca (1347-1424) Ebough the prese (1347-1424). Though the prose literature of the time is chiefly repreprose sented by the tales and novels of these and other men, the chronicle is very important as being the first attempt at historical writing. The greatest historian of the time was undoubtedly Giovanni Villani, who wrote a chronicle of his native city, Florentine, including a review of the world's history from the Tower of Babel down to 1346. He was carried off by the Black Death in 1348, and his work was continued by Matteo

Polo, and the religious sentiment of the time is . the letters of St. Cathari (1347-80) and in the collection of the words and deeds of guished of the men of letters who frest. Francis. It is a curious fact, however, that during the period were Luigi Pulci (1431-87) and Angelo succeeding the death of Dante, Ambrogini (1454 - 92), commonly

dearth of great writers. This may partly be accounted for by the overestimation of ancient Greek and Latin writers and the consequent under-estimation of works in the There was a great vulgar tongue. demand for translations of classical works, and during the early part of the 15th century Latin was the only acknowledged literary medium for new and original work. Among those who ventured still to write in Italian must be numbered Leon Battista Alberti (1407-72), with his Della Famiglia, and Matteo Palmieri (1406-75), with his Della Vita Civile. Works of a more popular kind were the prose romances I realt di Francia and Guerino il Meschino of Andrea Barberino (1372-1431), the burlesque topical sonetti caudati of the Florentine, Domenico di Giovanni (d. 1448), surnamed Il Burchiello, and the rappresent azioni sacre, or religious dramas, which corresponded in some ways to the miracle and mystery plays of England.

In the middle of the 15th century two great events occurred which were of vast importance in the literary history of every European country. One was the fall of Constantinople in 1453, which brought an influx of Greek scholars into Europe: the other was the invention of printing, which did not affect I. till 1464. In 1447 the crudite founder of the Vatican Library was made Pope Nicholas V., an election which gave great impetus to the study of antiquity. Another event which in-fluenced Italian literary history was the foundation of the Roman Academy and the Florentine Platonic Academy, the latter of which made the important declaration that Italian was equal in literary merit to Latin. Moreover, in the great centres of literary activity there were growing up young men of genius who

de' Medici (1448-92), prince, poet, and patron of literature. His works in-Work was continued by matter parton of interature. His works inviters of note are Marchionne Stefani (d. 1385) and Dino Compagni, whose Cronaca dei suoi tempi pagni, whose Cronaca dei suoi tempi licentions character, a number of licentium character. rature elegant love poems, besides pastorals and satires. He not merely entry by his personal example, popular literary forms, but

d into them the culture of issance. The most distin-

known as Politian. To the former we are indebted for the Morgante Maggiore, a humorous epic in ottava rima, which contains a curious mixirreverent and of flippant buffoonery, lofty sentiment, and religious fervour. Politian, who was a brilliant classical scholar and philologist as well as a poet, wrote the lyric tragedy Orfeo; Giostra, a poem on the tournament; and some exquisite Stanze per la giostra. Other proteges of Lorenzo were Antonio Manetti (1423-97) and the famous Girolamo Savonarola (1452-98). Renaissance of ancient culture was similarly fostered by Ferdinand I. at Naples. Jacopo Sannazaro (1468-1530) was the first to show that excellent Italian prose could be written outside of Tuscany. His that Arcadia, a pastoral romance, fore-shadowed by Boccaccio's Ameto, is classical in its construction of sentences as well as in its setting. It set the fashion for writing in studied poetical prose, and prescribed the rule for all future pastoral romances. A fellow townsman of his was Giovanni Pontano (1426-1503), the founder and head of the Neapolitan Academy and the author of many graceful lyrics and lively satires, which are unfortunately written in Latin. In Ferrara, the literary centre of the N., Matteo Maria Bolardo, Count of Scandiano (d. 1494), enjoyed great popularity as the author of an unfinished poem, Orlando Innamental which calculates morato, which celebrates deeds famous in old French cycles. The story is original, and though the incidents are ingenious the characters are real people, but the style and diction are lacking in refinement.

The romantic epic, thus for the first time handled with any success Dy Boiardo, was perfected by Interature. In the end the puriss, who maintained the Tuscan of the Orlando Furioso is a sequel to the 14th century to be the literary Orlando Innamorato. The works of Ariosto open a new period in the history of Italian literature, a glorious (1470-1547), who came to be regarded period called by Italians the Cinter works of the dictator in all matters of the dictator in the end the puriss, who maintained the Tuscan of the Orlando Furioso (1470-1547), who came to be regarded as the dictator in all matters of purissis. perfected

Tasso (1493-1569) in his Amadigi and Luigi Alamanni in Girone il Cortese owed much to Orlando Furioso. The high seriousness of these poets is even more prominent in the didactic work of Giovanni Rucellai (1475-1525) and Erasmo da Valvassone (1523-93). Side by side with these didactic poets there developed a school of burlesque writers, the chief of whom were Francesco Berni (1497-1535) and Francesco Berni (1497-1535) and Antonio Francesco Grazzini, surnamed Il Lasca (1503-84). The cynicism and lack of morality that was characteristic of the time is prominent in the work of that crafty but far-sighted statesman, Niccolo Machiavelli (1469-1527). Second to him as a historian is Francesco Guicciardini (1483-1540), who, besides writing of the history and government of Florence, made a collection of called for statesmen aphorisms Ricardi politici e civili. The two chief novelists of the 16th century were Mattee Bandello and Anton Francesco Although the former was Grazzini. a Dominican friar, his works reflect the loose manners of the time as much as any of those of his contemporaries. The licentiousness of the Italian court wa famous Pietro

whose letters, 6 vols. (1609), are an index to the life of the times. His comedies are lively and satiric sketches of contemporary manners. Other comedy writers of high merit are Giovan Maria Cecchi, Machiavelli, and Ariosto, but the greater number of Italian play-wrights adopted the conventional methods employed by ancient writers of Letin convert of Latin comedy. During the latter part of the Renaissance a literary controversy took place with regard to the introduction of dialect forms in literature. In the end the purists,

> prose 1478-1529) and Tuscan 503-56).

of Torquato Tasso (1544; is period to a close, and between it and the next.

Latin verse. Another epic writer of His early writings included Rinaldo and Aminta, a beautiful pastoral play, but his life work was the Gerusalemme Liberata, a poem on a heroic scale, in which is expressed the profundity of his feeling and the drop water than the second of the secon deep melancholy of his soul.

The period of decadence which

the second period of the Renaissance was Giovanni Giorgio Trissino (1478-1550), a nativo of Vicenza. His Italia liberata da' Goti (published 1547-48) is also of interest as the first attempt to write Italian epic poetry in blank verse, but it lacks inspiration and falls far behind his tragedy followed the glorious era of the Responsiba (1515). Both Bernardo naissance may be traced back to the

middle of the 16th century. writers of the Scicentismo were devoid of imagination, of passion, of sentiment. The inspiration of the Revival of Letters left them cold and hervivin of letters for them could and barren, and their work is distinguished by its exaggeration, bombast, and artificiality. The fashion for this rapid manner of writing was set by Giovan Battista Marini (1569-1625), who, in spite of his far-fetched conditions of the conditions ceits and extravagant metaphors, showed a vigorous imagination in his poem, L'Adone. His manner was mimicked by lesser men, and the style which came in vogue was called after him, Marinismo. characteristic of the Seicentismo is seen in Gabriello Chiabrera of Savona seein Gabriello Chiabrera of Savolia (1552-1637) and his followers, Fulvio Testi of Ferrara (1598-1646), Fran-cesco Redi of Arezzo (1626-98), and Alessando Guidi, who imitated Pin-dario and other classical metres, and uaric and other classical metres, and showed themselves possessed of a real lyric gift. The pastoral drama, essentially an artificial production, became extremely popular, the chief examples of the kind being the Pastor Fido of Guarini (1537-1612), and the Dafne of Rinuccini, which was set to music by Peri and Caccini. Vincenzo Filicaja (1642-1707) is noterorthy as heing one of the few writers. worthy as being one of the few writers of this age with real sentiment. His songs have a true patriotic ring, but even they are expressed in an exaggerated form. A reaction against the extravagance of metaphor and affectation of an exuberant, passionate style became evident, and took definite form in the establishment by Giovan Maria Crescimbeni ment by Giovan Maria Crescimeen and Gian Vincenzo Gravina of the 'Academy of Arcadia' (1690), which advocated a return to pastoral simplicity. The most noted of the 'Arcadians' were Innocenzo Frugoni, Felice Zappi, and Paolo Rolli. But these would-be reformers only fell from one affectation into another; the effeminacy of their madricals is no effeminacy of their madrigals is no better than the hyperbole of Marini. healthy sign of revolt against Marinismo and Arcadia is seen in the satires of Salvator Rosa (1615-73), a as a literary critic of high merit. His Neapolitan artist and musician and a forerunner of the 18th century patriots, and in the mock-heroics of tura, he also wrote textual criticisms alterary to the Salvator of La Secchia Rapita and classicists of note are Vincenzo Monti Filippiche. But the most durable (1754-1828), who attacked Papacy Work of the Salvator International Control of the Salvator International work of the Scicentismo was done by scientists like Galileo Galilei and Fra Paolo Sarpi and thinkers like Fra Paolo Sarpi and thinkers like Bassilliana and Feroniade; Gianticolor Giordano Bruno and Tommaso battista B. Niccolini (1782-1861), who wrote tragedies on political subdistinguished by its precision and jects, as c.g. Antonio Foscarini and Lodovico il Moro; Ippolito Pindetrility.

The Vico, who, in his Scienza nuova, in-were vestigated the universal laws of history which had governed the progress of the human race. Lodovico Antonio Muratori, Scipione Marfei of Verona, and Apostolo Zeno applied themselves industriously to historical research, and Count Giovanni Maria Mazzuchelli of Brescia and Girolamo Tiraboschi showed an interest in the sources and development of literature. Independent criticism found a public platform in the reviews recently established on the model of the English Spectator the model of the English Spectator and Tailer. Chief of these were the Osservatore and Gazzetta veneta of Gaspare Gozzi (1713-86) and the Frusta letteraria, in which Giuseppe Baretti of Turin (1719-89) gave vent to his satirical humour. Most constitution of the Company of Chicagone. was Giuseppe

who ridiculed the frivolity and self-indulgence of the society of the time in Del Giorno. Carlo Goldoni (1707-93) may be regarded as the dramatic

reformer of the 18th century. With Mollère as his master, he studied the people living about him and sup-planted the commedia dell' arte by comedies of character.

The educated classes in Italy were at this time filled with a hope of freedom from the foreign yoke. idea of liberty they found best expressed in the writings of ancient Greek and Latin writers, on whose style they tried to model their own. Vittorio Alfieri (1719-1803) made a determined offers to sea which had a determined effort to establish national drama. His tragedies, which are almost invariably based on incidents in Greek or Roman history, may lack artistic finish, but they are inspired by a noble patriotic spirit. The chief literary fighters for national liberty at this time followed Alfleri in a return to classic models. Ugo Foscolo (1778-1827) passionately advocated the political cause in *Lettere di Jacopo Ortis, Sepoleri*, and *Ortis*, which are somewhat marred by his Gargantuan rhetoric. Foscolo should also be noted as a literary critic of high merit. His (1754-1828), who attacked Papacy in Superstictione and Fanatismo, and expressed his fears for his country in The Risorgimento, or Age of Revival, monte (1753-1828), a dramatic poet; was also prepared by Giambattista and Leopardi (1798-1837), the

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Itch

gressive policy roused Carlo Botta (1766-1837) to write a history of his country during the years 1789-1814. Just as the dramatic poets mentioned of the romantics, and sought his inspiration in the national literature of an earlier time. The chief followers of his classical manner are guide Mazz Just as the dramatic poets mention in above had found their inspiration in classical literature, so Botta turned classical literature, so Botta turned to the same source and modelled his to the same source and modelled his style on that of Roman historians, and the whole, has become style on that of Roman historians, and the whole, has become style on that of Roman historians like him. distinguished the chief exponent of the chief expon Other historians like him, distinguished by their patriotism and by their classic methods, are Cesare Balbo (1789-1853), who wrote a Sommario della storia d'Italia; Gino Capponi (1792-1876), and Lazzaro Papi of Lucca, author of the Com-mentari della rivoluzione francese dal 1789 al 1814.

The modern literature of I. may be said to have arisen out of the romantic movement which started in Milan towards the end of the 18th century. The chief characteristics of Matilde Scrao, while Vittoria Aganoor, the new movement were a renewed Annie Vivanti, and Ada Negri are study in the aurei trecentisti, the women poets of repute. Gabriele study in the aurei trecentisti, the women poets of repute. Gabriele classic writers of the 14th century, d'Annunzio is a brilliant and verastudy in the aurei trecentism, the classic writers of the 14th century of Annunzio is a brilliant and version of the table control of the table classic writers o the no a jour and it

great historical novel, Promess Spost, which owes much to Sir Walter Scott. Domenico Guerrazzi (1804-74) and Massimo d'Azeglio (1798-1865) were trans-Byron.

uscan, clever

are Giuseppe Belli, who wrote in Roman, and Porta, who wrote in Milanese. Among the political revolu-tionists, who were at the same time nonses, who were at the same time powerful literary advocates of the cause of liberty, should be noted. Vincenzo Gioberti (1801-52), who is also known by his philosophical work, Primato morale c civile degli. Italiani; Niccolò Tommasco (1802-

greatest lyrist since the Trecento. Carducci, set on one side the outworn Indignation against Napoleon's ag-methods of the romantics, and sought

Gerolamo modern methods being Rovetta and Giuseppe Giacosc. Antonio Fogazzaro (1842-1910) has won a great reputation as a writer of

novelists are Grazia Deleuca and who made a European reputation as the biographer of Machiavelli and Savonarola.

Francesco de Sanctis,

to oue

See the literary history of Whee and Percopo in German (1899, Italian Percopo in German (1899, Discorsi Other sulla Sloria
noted letteratura a manu sulla
ote in società di professori (9 vols), 1900;
ote in Guissani, Letteratura Romana, 1895;
ote in Guissani, Letteratura Romana, 1895;
ote in Guissani, Letteratura Romana, 1895;
carducci, Studii Letterarii, and Lirici
noted 1900; Rossi, Il Quatrocento, 1900;
noted 1900; Rossi, Il Quatrocento, 1800;
ophical
cento, 1900; Mazzoni, Il Selte
degli (1802; Hollow), 1900; Concari, Il Selte
1904; J. A. Symond, Renaissane in
1906; Studii Letterarii, and Literature, 1808.
Italy (new ed.), 1902; and R. Garneti,
Italy (new ed.), 1902; sand alsease trans.

Itch, any irritating skin disease. The commonest form is scables, a disease caused by the animal parasite sarconies scabes, which have made sarcoples scabei, which burrows under the skin and causes intense irritation Humbert is marked by the patriotic poems, stornelli politici, of Francesco the patient with resulting rawnes the patrent of the romanic school were may occur on any part of the butter of the poems of Giovanni prati (1815-84), but the greatest tween the fingers. The treatment trailing poet of modern times, Giosue application of sulphur ointmen

Barber's itch is caused by a fungus and affects the hair follicles, partiflammation set up leads to the formation of pustules at the root of each hair affected. Cuban itch, an irritating skin disease introduced by soldiers from Cuba; it is supposed to be a mild variety of small-pox. Coolie itch, a skin-inflammation common amongst field-workers in Assam and other tropical countries. It is caused by the other larvæ of uncinaria duodenalis, and the eruptions are confined to the surface of the lower extremities.

Itch-mite, the name given to the species of Sarcopting, a sub-family of arachnids which are parasitic on the skin of mammals, birds, and insects. Notoedres, Prosopodectes, Sarcoptes, and Chorioptes are among the commonest genera. S. scabiei attacks the skin of man, and produces the disease

known as scabies.

Ithaca: 1. Now called Thiaki, one of the Ionian Isles, and lies E. of Cephalonia. It has an area of about 37 sq. m., and is mountainous. Wine and olive oil are the chief productions. The chief town is Vathy (pop. about This island is noteworthy as having been the home of Ulysses. Pop. about 11,050. 2. A tn., the cap. of Tompkins co., New York, U.S.A. It stands on Cayuga Lake, and manu-Testands on Cayuga Lake, and manufactures guns, salt, and machinery. Cornell University is situated hero. Pop. (1910) 14,802.

Ithome, the name of a fortress and mountain in Messenia, ancient

Greece. The fortress played an important part in the Messenian wars waged against Sparta during the

7th and 5th centuries B.C. Itinerary (Lat. itinerarium, from O. Lat. itiner, a journey), the name applied by the Romans to a list of the applied by the Romans to a list of the stopping-places, or halts, with the oldest town in Schleswig-Holstein. distances from one to another, between two places of importance. The twest built, was erected by Charle-Leaving generally divided into two imagne, 809. It carries on manuclasses, one having the character of a factures of tobacco, sugar, beer, and book, and the other being a kind of soap, and is a busy river port. Poptravelling map. Of the former, the most important are the *Itincraria* luka, a tn. in Mississippi, U.S.A., autonini, and the *It. Hicrosoly-milanum*. Of the latter only one great of Corinth. Here the Federals under example remains, viz. the famous General Rossnerans defeated the example remains, viz. the famous General Tabula Peutingeriana.

Ito, Prince Hirobumi (1838-1909), 1862. There are valuable mineral Japanese statesman. In 1863 he springs near. Pop. 882. a Japanese statesman. worked his way before the mast to London, and joined others of his nation who had come to Europe to study Western civilisation. He reactive part in the social and political his strict economies, consolidated reorganisation of the country. From seattered Russian territories, conbeing Minister of Public Works he rose to the rank of Prime Minister in the former city the metropolitan see 1880, which office he held four times. in place of Vladimir.

He was selected by the Mikado to study the various forms of constitutional government in Europe, and was the author of the Japanese constitution of 1889, which in many respects is more liberal than that of several European countries. energetically laboured to promote the development of the country, both military and industrial, and made Europe frequent visits to America. He was made prince in 1907, and appointed resident-general of Korea after the Russo-Japanese War, meeting his death at the hands of a Korean at Kharbin.

Itu, or Ittu, a tn. in Brazil, on the R. Tiete, 70 m. W.N.W. of São Paulo. It is the centre of a great cotton. sugar, and coffee producing district. and has cotton factories, and iron and bronze foundries. Pop. 11,000.

Iturbide, Augustin de (1783-1824), for ten months emperor of Mexico, was a creole by birth. In early life he much distinguished himself as a soldier in the royalist cause, which was then endangered by Hidalgo's and Morelo's rebellions. He rose to general, but in 1816 retired from active service after acquittal from serious charges of violence and ex-tortion. In 1822 he accepted from his devoted soldiers the title of Emperor Augustin I., for the Spanish Cortes refused to recognise the virtual independence of Mexico as set forth in the treaty of Cordova. After a compulsory abdication (1823). result of his arrogance and despotism. he went into exile, and was murdered whilst attempting to return

Iturea, a dist. in ancient Syria, lies between Damascus and the Lake of Tiberias in N.E. of Palestine.

ltzehoe, a tn. in Prussia, on the Stör, 44 m. N.W. of Hamburg, is the oldest town in Schleswig-Holstein. The castle of Enselsfleth, round which

Rosencrans defeated the Confederates under General Price in

Iulus, see Ascanius.

Ivan, or John, the name of six grand dukes of Moscow and tsars of Russia: study Western civilisation. He returned to Japan in 1865, and took an Kalita, or Money-Bag, because of

Ivan II. (1326-59), son of the Jenner above, was a 'gentle and merciful prince,' but a weak ruler, who much

diminished the grand duke's prestige.

He began to reign in 1353.

Ivan III. (1440-1505), called 'the Great,' ascended the throne in 1462. His commander Svenigorod crushed the power of the invading hordes of Tartars (1481). I. introduced firearms and cannon into Russia (1475), and also forced the heretofore independent kingdom of Novgorod to acknowledge his suzerainty (1478). He disregarded his boyars, and ruled as an autocrat.

Ivan IV. (1530-84), called the 'Terrible,' grandson of the above, came to the throne in 1533. He was a great conqueror, subduing Kazan and Astrakhan and annexing Siberia to the Russian kingdom. Further he was a good legislator, and in 1550 made a code known as Soudebuik. But he was cruel and tyrannical by nature, and was responsible for a number of ruthless massacres.

Ivan V. (1666-1696), became tsar in 1682, and was associated in power with his half-brother, Peter. He was

quite deficient in personality, and became the tool of stronger men.

Iran VI. (1740-64) never reigned, but passed practically the whole of his life in solitary confinement till his

murder in 1764.

Ivanovo-Voznesensk, a tn. in the government of Vladimir, Russia, and is situated 60 m. N.N.E. of Vladimir. It has large manufactures, particularly of cotton, and also chemical works,

Pop. 65,000.

Iveagh, Edward Cecil Guinness, Viscount (b. 1847), a philanthropist, was until 1889, the year of his retirement, head of the Guinness firm of Lectures, 1856). These are sometimed bublin brewers. Three years before he severed his connection the business connection the business of the severed his connection the severed his connection the business of the severed his connection the severed his ness was sold to a company for over five millions sterling. His first munificent charitable donation was quarter of a million to be spent in building homes for the poorest work-men of London and Dublin. This This fund is now controlled by the London and Dublin Guinness Trusts for Housing the Poor. Guinness became a peer in 1891, and soon afterwards embarked on a scheme for clearing and replanning seven acres of slum in Dublin city. Here he has arranged for labourers' dwellings, a public pleasuregarden, swimming baths, and a concert hall, and it is certain that the sum expended will considerably exceed the estimated £250,000. Dur- species the females are practically ing the S. African War he despatched and financed an Irish field hospital to look after the sick and wounded, is too brittle to be of much value whilst with yet another £250,000 Antwerp is the chief market for L he increased the endowment of the L is valued according to the size

Preventive Institute αť Medicine in London.

" of the Great Ouse. hrough Bedfordconfluence is at

Tempsford.

empsford. Length 30 m. Ives, Frederic Eugene (b. 1856), an American photographic inventor, a native of Litchfield, Connecticut. The reader is referred to I.'s own publications for the best account of his work. These include Isochromatic

. 1889, in which less of half-tone d 'the photo-

1094-a device by chromoscope,' which a single positive image in natural colours is produced by a combination of three negative ones.

I veston, a vil. in the co. of Durham.

England, situated about 91 m. N.W.

of Durham. Pop. (1911) 4500.

Iviza 1. An island belonging to the Balearic Isles, situated in the Mediterranean Sea, between 50 and 60 m. from the coast of Spain, to which country it belongs. This island has a much indented coast and a mountainous and well-wooded interior. The chief productions are fruit of various kinds, and salt. Pop. about 23,500. 2. The cap. of the above is. It is a fortified tu., and was the sec of

a bishop. Pop. about 6500.
Ivory, the term properly given only to the material which forms the tusks of elephants, and is 'that modifications' that modifications' that modifications is the constant of the c tion of dentine, or tooth-substance, which in transverse sections or fractures shows lines of different colours, or striæ, proceeding in the arc of s circle, and forming by their decus-

n the teeth of most animals in that they are imbedded in semi-solid vascular pulp, and continue to grow in size during the whole life of the elephant. term ivory is often extended to a similar substance obtained from the walrus, narwhal, hippopotamus, etc. The L from the African elephants is the most esteemed on account of its superior density and whiteness, but a certain amount is also obtained from India, Ceylon, Burma, and the islands of the Eastern Archipelago. African elephants both the males and females have tusks, although those of the males are larger, but in the Indian 117

and soundness of the tusks, and the price ranges from £10 to £90 per cwt. according to that. When there seemed a probability of the supply of I. running out, the price rose tremend-ously, but since it has been discovered that the natives store their I., which they will barter, the price has remained fairly uniform. Unfortunately the natives have discovered the superior value of newly obtained tusks, and palm off a large quantity of 'dead' I., which has been buried for centuries, upon unwary traders. The special qualities of I., its beautiful texture and tints, its perfect elasticity and adaptability carver's tools, have been recognised from the earliest times, and examples of carved I. dating from the time of Moses are still in existence. Vegetable I. is the name given to 'Corozo Nuts,' the hard, white, potato-like seeds of the palm-like tree (Phytelephus macrocarpa) which grows in the low, hot valleys of the Andes. valued at about £10 a ton, and is used for buttons, etc. For another substi-tute for I. see CELLULOID. See also A. Maskell's Ivories, 1906. Ivory, James, F.R.S. (1765-1842), a

mathematician, born in Dundee. He was educated at St. Andrews and Edinburgh universities, but gave up his original intention of entering the ministry and taught in a seminary at Dundee, afterwards becoming managing partner in a flax-spinning mill He was appointed pronear Forfar. fessor of mathematics in the Royal College, Marlowe, Military Bucks, afterwards transferred to Sandhurst. He was a fellow of the Royal Societ from which he received three gold medals, and was elected member to corresponding scientific societies in France, Berlin, and Göttingen. 1831 he was knighted and received a pension of £300 a year. He died at

Hampstead.

Ivory, Vegetable, the name given to the hard white endosperm contained in the seeds of various plants, e.g. Phytelephas macrocarpa, a S. American palm. In appearance it resembles Ivory, and is used in carving.

can palm. In appearance it resembles ivory, and is used in carving.

Ivory-black, a soft pigment prepared from calcined ivory-scraps, turnings, and sawdust; it is used in the manuf. of paints and printers' ink.

Ivory Coast, a French colony on the S. by the Gulf of Gulnea, W. by Liberia and French Gulnea, N. by Liberia and French Gulnea, N. by Upper Senegal on Niger, and E. by the British colony of the Gold Coast. The low coastal plains extend inland about 40 m., beyond which the ground rises from a general height of about 1000 ft. to the plateau of the Kong territory (4757 ft.), which is largely

covered with almost impenetrable. primæval forest, interspersed patches of savannah. The rivers are of little importance, and all drain into the Gulf of Guinea. The chief products are maize, plantains, bananas, pine apples, limes, coffee, pepper, cotton; rubber and mahogany are exported in large quantities, and so exported in large quantity, are palm oil and kernels as well as a little ivery and gold dust. The imlittle ivory and gold dust. The imports (£447,690 in 1909) consisted mainly of cotton goods from Great Britain. The present capital is Bin-gerville (native Adjame); other towns are Great Bassam and Little Bassam (the chief port), Jackville, and Assini. From Abijean a railway runs N. to the oil and rubber districts. The colony was established in 1899, the coast having been settled in 1843, and the 'hinterland' in 1883. Area approximately 120,000 sq. m. Pop. about 1,000,000. See T. J. Fop. about 1,000,000. See T. J. Clozel, Dix ans à la Côte d'Ivoire, 1905; R. Villanour and Richmond, Notre Colonie de la Côte d'Ivoire, 1903; and La Côte d'Ivoire, 1908.

Ivrea, a tn. in the prov. of Turin, Italy. It is situated about 38 m. by rail N.E. of Turin, on the Dora Baltea. This town possesses many interesting buildings, among which

Ivrea, a tn. in the prov. of Turin, Italy. It is situated about 38 m. by rail N.E. of Turin, on the Dora Baltea. This town possesses many interesting buildings, among which may be mentioned the cathedral and the old castle. The ancient town was in Roman times a place of importance. The modern town has manufs. of silk goods. Pop. (commune) about

11,696.

Ivry-la-Bataille, a tn. in the dept. of Eure, France. It is noted as the scene of the victory of Henry IV. of Navarre over Mayenne in 1590. Pop. about 1100.

Ivry-sur-Seine, a tn. in the dept. of Seine, France. It is situated on the l. b. of the Seine, S.E. of the fortifications of Paris. It has broweries, earthenware and engineering works.

Pop. 33,000.

Ivy, or Hedera Helix, one of three species in its genus, which belongs to the Araliacere. It is an Old-World plant, which climbs by means of its roots, bears two forms of leaves, and has small flowers which secrete a great deal of honey and are therefore pollinated by insects. The groundity, or Nepeta Glechoma, is a species of Labiate unallied to the common I.

Ivybridge, a small tn. of Devonshire, England. It is situated in the valler of the Erme, about 10 m. N.E. of Plymouth, and has paper mills. Pop.

(1911) 1730.

Ixelles, in the prov. of Brabant. Belgium, a manufacturing suburb of Brussels. Pop. 58,615.

Ixia, a genus of iridaceous plants. consists of two dozen species, all of which are natives of S. Africa.

Several are cultivated in Britain for

Ixion was, according to Greek refused. He was also afflicted by a legend, King of Thessaly, son of terrible disease, and atter spending Phlegyas, and husband of Dia. All years of wandering was eventually men shunned him when he murdered cured, while Eabani was punished by his father-in-law, but Zeus in pity the goddess and died. bore him to Olympus. I., however, abused the god's hospitality, and strove to seduce his wife. By embracing a cloud, which he believed to be Hera, he became father to the Centaurs. Zeus punished his treachery Jachim (b. 1855), a French socioloby binding him in hell to a fiery wheel gist, secretary to Bert in Gambetta's cabinet (1881-82), chevaller of the company professor of social ing a cloud, which he believed to be and iron works. Pop. 21,500.

ixmiquilpan, a tn. in Mexico, in the state of Hidalgo, is 80 m. N.W. of the

of Lake Izabal. Pop. 5100.

Izamal, a tn. of Yucatan, Mexico,

50 m. E. of Merida. It has many ancient ruins, which are visited by Indian pilgrims. Pop. 6000.

Izard, the name of a chamois (Rupi capra tragus) indigenous only to the ments.

Pyrenees. It closely resembles the chamois of the Alps, but is both smaller and ruddier in hue.

Pop. 1:

Izdubar, or Gilgamesh, the name of Ixiolirion, a genus of amaryllidaceous plants, is indigenous to W.
Asia. There are only two species, and twas successful in slaying a tremendof these I. kolpakowskianum is cultivated in Britain.

Great Testing The Great Section of Check Testing Tes

the goddess and died.
Izhevsk, or Izhevsky, a tn. in the gov. of Vyatka, Russia, 145 m. S.W. of Perm; has an imperial gun factory

Ixora, a genus of rubiaceous plants found in tropical countries, and the species, which number about one species, which number about one hundred, are evergreen shrubs.

Izabal: 1. A dept. of Guatemala, Roosevelt's La Vie Intense, and coast. It is low and unhealthy, with extensive forests. 2. A cap. of the above prov., situated on the S. shore of Lake Izabal. Pop. 5190, Izamal, a tn. of Yucatan at 150 m. E. of Y Légion d'Honneur, professor of social

them are active, and Izu-no-Oshima has a well-known smoking volcano

(Mihara, 2500 ft.). They were used by the Japanese as convict settle-

Izyum, a tn. in Russia, on the r. b. of the Donets, in the gov. of Kharkov. Pop. 13,000.

J, a modified form of I, is the three sons were buried. latest addition to the alphabet. The now uncertain, symbol, a lengthened form of i with Jabiru, or Mycteria, symbol, a lengthened form of i with symbol, a lengthened form of i with a curve to the left, was first used in 14th century MSS. for distinctive (Ciconidæ). The American J., which purposes, particularly when i had to is found from the Argentine, north-be written initially or in conjunction ward to Mexico, stands sometimes as much as 5 ft. high, has pure white being a vowel, had the consonantal plumage except for a black neck and sound of a time such words as index pend and messive slightly netword. sound of y, in such words as index head, and massive, slightly-upturned and major. This sound came into bill. Other species occur in India, England as dzh through French, Australia, and Africa. where it had changed in sound to zh (cf. English judge, French juge). In French the sound zh was also represented by g. Consequently, such French words, in passing into English, by analogy with words like judge, have an alternate spelling of g and j. For example M.E. geste, Giwes; N.E. jest, Jews. This accounts for variations in the spelling of words like gad, jail, gibe, jibe, Geoffrey, Jeffrey, sergeant, serjeant. The Latin value of j=y may still be found in words of foreign origin, as hallelujah, junker,

18,950 sq. m. Pop. 2,061,000. 2. The cap. of above div., 150 m. N.E. of Nagpur, near the Nerbudda R. It is at the junction of two great railway systems, and one of the most im-portant railway centres in India. It is also a commercial city and manufs. cotton goods, tents, and carpets. Pop. 89,700.

principal tributaries of the Jordan. It rises in Jebel Hauran and and flowers in racemes. The leaflets, enters the Jordan 30 m. above the when dried, are valuable for their Dead Sea. It has many scriptural associations, and is first mentioned in Surpoper and Sea to the season of the connection the meeting with It is now called Jacob and Esau. Mahral Zarka, from the fortress of carpine and jaborine, a volatile oll Zarka which stands on its banks and a bitter substance. The effect of between Damascus and Mecca. Its J. is to produce muscular relaxation,

portant in religious history. Accord- when applied to the eye it causes ing to Josephus it was the metropolis contraction of the pupil and interof the Gilcadites. Here Saul and his feres with the vision.

Jablonski, Paul Ernst (1693-1757), a Coptic scholar, studied Coptic and other Oriental languages under La Croze. In 1714 the Prussian govern ment paid the expenses of a foreign tour that he might improve his knowledge, the result being a valuable collection of copies of Coptic MSS., etc. Among his learned works are Pantheon Egyptiorum (3 vols.), 1750-52, and a number of biblical

studies.

Jabneel, a tn. in Palestine, between Joppa and Ashdod, 3 m. from the Jabalpur, or Jubbulpore:
I. The tine stronghold. It was taken by the most northerly div. of the Central Israelites and played an important Provinces, British India.

Area part in Jewish history. It was contained by the Maccabeans and between the central the central of Jewish scholars. Mediterranean, was an ancient Philiscame the centre of Jewish scholar-The sittings of the Sanhedrin ship. The sittings of the Sanhedrin were held here after the destruction of Jerusalem. Near the modern village, Yabna, built on the ancient site, are the remains of a fortress built by the Crusaders. The Jabneel mentioned in Joshua xix. 13 is situ-

Jabary, or Javary, a riv. in S. ated S.W. of the Sea of Galilee.

America, is a trib. of the Amazon, joining it near Tabatting after a name for a number of drugs prepared course of 450 m. It forms part of the from several rutaceous plants, but boundary between Brazil and Peru, particularly from the leaflets of leaflets of This shrub and is navigable for 300 m.

Jabbok, a mountain stream of is about 4 or 5 ft. high, with longGilead, Eastern Palestine, is one of stalked, alternate leaves, from 1 to 11 ft. long, leaslets about 4 in. long,

> 1874: pilo-

length is 110 m. salivation, and perspiration; if taken Jabosh-Gilead, a city of Gilead in in large doses it causes nausea, to Palestine, E. of the Jordan, is im-which atropine is an antidote, and perspiration. This drug is used by the Indians in case of fevers, and by European medical men in

and by European and State Bright's disease, etc.

Jaca, a fort. tn. in Spain, in the prov. of Huesca, on the Arragon, 66 m.

N.E. of Saragossa, has a famous old cathedral. Pop. 5000.

Jacamars, a little-known species, the dages tropical forests

found in the dense tropical forests of S. America, E. of the Andes, and classed in the family of the Galbulidæ. The golden, bronze, and steely lustre of their brilliant plumage, and the length and sharpness of their straight bills, are their chief characteristics. They are usually seen sitting motionless on trees and are therefore counted dull and stupid. The largest species is the

Jacana, or F whose most

length of their toes and claws, which enables them to travel on the flat leaves of water-lilies and other river plants. Their eggs are a rich olive-brown, usually streaked with dark brown, usually streaked with dark lines. The common J. (Parra jacana) of Brazil is black with green plumage on the wings and a warm-blown neck. In habit it resembles a water hen. The Hydrophasianus, or pheasanttailed J., frequents the marshes and lagoons of India and China and is the largest of all the genera.

Jacaranda, a genus of Bignoniaceæ, found in tropical America, consists of about thirty species which are of addit their heavy, fragrant wood; these are also frequently known by the name of rosewood. J. ovalifolia, a native of Brazil, are common species.

Jacare, an alternative generic name for the Caiman, S. American alternative generic alligators belonging to the family

Crocodilidæ.

Jachus, or Hapale jacchus, the name of a species of Primates belonging to the family Hapalide or marmosets; they are small monkeys found in S. America; their fur is soft and their general appearance squirrel-like; the tail is ringed, longer than the rest of the body, and not pre-hensile. They are arboreal and feed on insects and fruits. Jacinth, see Hyacinth.

Jack, a word with a variety of meanings, all of them traceable to 'Jack,' the byname of a man, which is used in England as a familiar equivalent for 'John,' although it is at least equally possible that it is the at least equally possible that it is the French 'Jacques' (James). In compound words Jack has a contemptuous significance which has clearly grown from its familiar use. In the same way the French 'Jean' implies in compound expressions 'fool,' and from the Italian 'Glovanni' and chemicals are carried on Pop. comes 'zanni,' or in English 'zany.' (1910) 31,433. 2. Cap. of Madison co.,

This sense is seen in 'boot-jack' and 'meat-jack,' which were devices dispensing with the need of boys; in 'iack-of-all-trades.' 'every-man jack of all trades, 'every-man Jack,' jack 'for the knave in cards, 'jack 'for the small ball aimed at in bowls, 'jack 'for a young pike, and 'jack 'for a ship's flag, which is always smaller than the ensign.

Jackal (Turkish chakal, Persian shaghal), a name applied to many species of the genus Canis, but is properly restricted to Canis aureus, properly restricted to Canis aureus, which is a wolfish, wild, dog-like animal found throughout Southern Asia and Eastern Europe. In colour it is a grey-yellow, the back being darker than the belly. The tail is bushy; the teeth and round eye-pupils resemble the dog's, and its length is some 2 ft. or, with the tail, 3 ft. The shriek of a J. is even more dismal and bideous than a hyena's. dismal and hideous than a hyrena's, and the Arabic name Deeb (howler) is certainly appropriate. The common food of Js. is poultry and small mammals, but as they are fond of marauding by night in packs of 200 or so, they sometimes carry of sheep and antelopes. Other species besides the common J. are the Egyptian wolf (C. lupaster), the striped J. (C. lateralis), and the J. wolf (C. anthus).

Jack-a-lantern, the popular name of Ignis fatuus (q.v.).

Jackass, Laughing, the name given to the species of Dacelo, a genus of coraciiform birds. See LAUGHING

JACKASS. Jackdaw, Daw, or Corvus monedula, a species of crow. It is smaller than the rook and rarely exceeds 14 in. in length. The plumage is glossy black with purplish wings. Usually it lays five bluish-white eggs. mottled with tiny dark-brown spots, and it invariably chooses a hole in which to keep them, often the hollow of a tree, a rabbit burrow, a belfry; tower, or a castle turret. It is one of the best of the bird-architects, and the best of the bird-architects, and has been known to pile a stack of loose sticks 12 ft. high. In disposition it is remarkable for its temerity, domesticity, and cunning. Smils, worms, and insects are its chief food, indeed farmers are indebted to Jsalmost as much as to rooks for the destruction of insectivorous pests. Js. are common residents in most parts of the world, though they seem not to be known in America. not to be known in America.

Jackson: 1. A city in U.S.A., cap. of Jackson co., Michigan, is on the Grand R., 68 m. W. of Detroit. It

Tennessee, 75 m. E. of Memphis, is on the Forked Deer R. It is the seat of the S.W. Baptist University, founded in 1874. It carries on an important cotton trade. Pop. (1910) 15,779. 3. The cap. of Mississippi, is on the Pearl R., 45 m. E. of Vicksburg. It contains fine public buildings, including the public buildings. ing the state house with its valuable library, and several charitable and technical institutions. Manufactures of machinery, agricultural implements, and cotton are carried on. Pop. (1910) 21,262. 4. The cap. of Jackson co., Ohio, is 108 m. S.E. of Springfield. It is the centre of an iron and coal producing district. It has woollen, flour, and planing mills, and

blast furnaces. Pop. (1910) 5468. Jackson, Andrew (1767-1845), the seventh president of the U.S.A., was the posthumous child of an Irish emigrant, and was born in a S. Caro-lina log-hut. In spite of his poor schooling he managed to work up a good practice as a lawyer in Nash-ville, which in 1796 became the capital of Tennessee state. His shrewd, if rough-and-ready judgments, secured him a wide popularity, and when his mind veered round to a soldier's career he had small difficulty in becoming major-general in the native militia, whilst in 1814 he obtained a similar commission in the U.S.A. army. In the course of the war then in progress against Great Britain, J. won golden opinions among the rank and file by his capture of Pensacola, and his gallant defence of New Orleans. During the fence of New Orleans of Indians of war against the Seminole Indians of Florida (1818) he was guilty of several barbarities; yet these were covered in the brilliance of his former vic-tories. In 1828 he was elected president of the U.S.A., and in 1832 was granted a fresh lease of office. ultra-democratic principles carried all before them, and it may well be said that as a representative for Tennessee in the senate (1797) and as a judge of the supreme court of his state (1798) he had served an excellent apprenticeship. ticeship. His presidency was con-spicuous firstly for the way in which he ousted out federal officials from their appointments so as to make room for his own partisans, secondly for his triumphant veto on the Bill to renew the charter of the United States Bank, and thirdly by his determined and effectual crusade against the 'nulliflers,' who may be regarded as forerunners of the secession movement.

Jackson, Frederick George (b. 1860), an Arctic explorer, attended Edin-burgh University. For some months he travelled in Australian deserts. and in 1893 he journeyed on a sledge the outset.

In mid-winter garage the frazen tunJackson, Thomas Graham (b. 1835), in mid-winter across the frozen 'tun-

dra' of Siberia, which lies between the Ob and the Pechora. The Great The Great Frozen Land (1895) is the narrative of his adventures on this occasion. and in the same way A Thousand Days in the Arctic (1899) gives the results of the Jackson-Harmsworth Polar Expedition to Franz Joseph Land, which he commanded.

Jackson, Helen Maria (1831-85), an American authoress, was the daughter of a professor at Amherst College, Massachusetts. Emerson expressed his admiration for her meditative Verses, which were published in 1870. Her best work of fiction is Ramona

(1884), which contains an admirable appreciation of Indian character and life. In A Century of Dishonor (1881) Miss J. issued a spirited denunciation of the government's dealings with the natives. As a writer she was both prolific and versatile.

Jackson, Holbrook (b. 1874), an English author. He was joint-editor of the New Age, 1907; editor of The Beau, 1910; of T. P.'s Weekly since 1911. Among his works are E. Filzgerald and Omar Khayyam . . ., 1899; The Elernal Now (verses, 1900); Every Child (children's anthology), 1906; Bernard Shaw, 1907; William Morris, 1908; Great English Novel-ists, 1906; All Manner of Folk, 1912; The Eighteen-Nineties, 1913.

Jackson, John (1778-1831), a por-

trait painter, was the son of a tailor, who apprenticed him to his own trade. Sir George Beaumont, howover, saw that J. was a lad of artistic promise, and sent him to London to the Royal Academy schools. The youth amply repaid the patronage, and between 1804 and 1830 exhibited 145 pictures at the Academy. By far his finest portrait was that of Flax-man, but he also executed excellent likenesses of Lady Dover and of Canova (in Rome).

Jackson, John Brinckerhoff (b. 1862). an American diplomatist, served for two years in the American European naval squadron, resigning from the navy (1886). He was called to the bar in New York in 1889, and was to Greece. the various minister States, Persia, and Cuba (1902-11), then becoming Envoy Extraordinary and Minister Pleni-potentiary of U.S.A. to Roumania, Servia, and Bulgaria. He was Balkan representative the nt. American Olympic games at Athens (1906).

Jackson, Peter (1861-1900), a W. Indian pugilist, came of a negro He defeated Slavin and stock. managed to draw with J. J. Corbett after sixty-one rounds, in spite of the disadvantage of a sprained ankle at

an architect, was scholar (1854) and the St. John's R. This city, which fellow (1864) of Wadham College, is a very important railway centre, is Oxford. Much of his work has been restoration, and nearly all of it has been devoted to scholastic or ecclesiastic buildings. Thus in his own university town he designed the new Examination Schools, the new Radcliffe Library, and extensions to Brasenose, Corpus, Balliol, etc.; in Cambridge, the Sedgwick Memorial Museum, the Law Library, and the and he has

reeat Malvern Priory and Winchester Cathedral, and there is a new church of his at Aldershot. Reason in Architecture (1906) is one of his recent

publications.

Jackson, Thomas Jonathan (1824-63), an American general, was a native of W. Virginia. After distin-guishing himself in the war against the Mexicans, he taught for some time at the Virginia Military Institute, but it was the secession of his state and the outbreak of civil war which showed the splendid stuff he was made of. At the battle of Bull Run he commanded a brigade of the Confederate troops, and the sturdy stand made by him and his men earned him his proud title of 'Stone-wall' (1861). In the course of the famous Shenandoah Valley campaign (1862) he succeeded in defeating the three Federal detachments under Banks, Fremont, and McDowell, and later in inflicting a second defeat on Banks at Cedar Run, near Culpe-per, Virginia. During the Maryland campaign he obliged 11,000 Federals to surrender in Harper's Ferry, and his corps at the tough fight of Antietam rendered veoman service to the embarrassed Lee. Fredericksburg and Chancellorsville (1863) were his two last battles. At the latter he was thrice wounded and shortly afterwards died. To his soldiers he was a very Napoleon, but with his rare gift for inspiring popularity was combined the intense religious feryour of Cromwell.

Jackson, William (1730-1803), musical composer, studied music under the organist of Exeter Cathedral and later under Travers, then organist of the Chapel Royal, London. His Eleaies and other partsongs, especially 'Time has not thinned my flowing hair,' and the tender melodies in his opera, The Lord of the Manor (performed at Drury Lane in 1781), still delight all music lovers. musical composer, studied music

music lovers

Jacksonville: 1. The cap. of Duval

well built, possessing many large buildings, while its streets are wide and shaded with trees. It is also a resort for winter visitors, and an important trading place, exporting and importing very largely. Pop. (1910) 57,699. 2. The cap. of Morgan co., Illinois, U.S.A., situated about 33 m. W. of Springfield. In this town are situated several educational institutions, among them the Illinois College (Dissenting), the State Con-servatory of Music, and Illinois servatory of Music, College for Women n (Methodist). There a institut

Jack-: folia, a India.

tnv

by,

fruit tree and, like 16, bears a fruit of bread-like texture.

Jacmel, a seaport of Haiti, situated on the S. coast, 30 m. S.W. of Port-au-Prince. The vessels here anchor about half a mile away from the shore. Exports coffee, cotton, and logwood. Pop. about 8000.

Jacob, also called Israel, the son of Isaac and Rebekah. He was one of the chief of the three great Hebrew patriarchs whose histories are re-counted in the Book of Genesis. His twelve sons are spoken of as the ancestors of the twelve tribes. J.'s death took place in Egypt whence he was carried to Hebron for burial. The account given of J.'s life is of no higher historical importance than that of the rest of the Book of Genesis and interpretation of the part will depend upon one's view of the whole. Cheyne considers his name to be that

'not of an individual, but of the imaginary ancestor of a tribe.

Jacob, John (1812-58), a British officer, born at Woolavington, in Somerset. Having entered the army he served in the Cutchee expedition (1834-40), and in 1841 received a command in Sindh, and in 1847 was Upper political superintendent of Sindh, and in 1857 commanded a cayalry regiment in Persia. Jacobabad, where he died, was named after him. Jacob, Sir Samuel Swinton (b. 1841).

an English engineer, born in India. Among his various services to India may be mentioned his success in dealing with the famine in Rajputana (1868-69). He has been presented with several medals, and became C.I.E. in 1890. He has published Portfolios of Architectural Details. 1890; and Jaipur Enamels.

Jacobabad, a tn. of Upper Sindh, India. It is situated 45 m. N.W. of Shikarpur, and has cantonments. obtains its name from General John co., Florida, U.S.A., and situated on Jacob, its founder. Pop. about 12,500.

Jacobi, Friedrich Heinrich (1743- houseroused the Highlands for James, 1819), a German philosopher, born at fought the battle of Killiecrankie, but Düsseldorf, studied at Frankfort and Geneva. In his youth he made the acquaintance of Lessing, Herder, Herder. Hamann, Wieland, and Goethe. In 1770 he became councillor of finance for the duchies of Julich and Berg, and in 1807 was made president of the Academy of Sciences at Munich, where he died. His philosophical work was not original in nature, but consisted in keen criticism of the systems promulgated by others. He realised that the understanding alone could never raise mankind above materialism, and agreed with Kant that faith alone could be the criterion of what lay outside the realm of the senses. He was largely responsible senses. He was largely responsible throne, a Jacobic rebellion took place sophy of Spinoza by his letters to both in Scotland and in the N. of Eng-Mendelssohn, Ueber die Lehre des land. The indecisive battle of Sheriff-Spinoza, 1785, and compared Hume muir, the surrender at Preston, and with Kant in his work David Hume the some über den Glauben, oder Idealismus und the Old Realismus, 1787. He also expounded the over Scholling's philosophy in Von den göttlichen Dingen und ihrer Offenbarung, 1811. Apart from these he wrote philosophical romances, Woldemar, 1779, Allwill's Briefand sammlung, 1799. His collected works were published at Leipzig in 1812-24 in six volumes. See Zoppritz, Aus F. H. Jacobis Nachlass, 1869.

Jacobi, Karl Gustav Jacob (1804-51), a German mathematician, born at Potsdam, and after completing his education was made professor of mathematics at Königsberg, from which he retired in 1842, owing to illhealth. He is remembered as the discoverer of elliptic functions, and he helped to formulate the theory of determinants. His most important work is Fundamenta Nova Theoria Functionum Ellipticarum, 1829. Gesammelte Werke were published in

1881-91.

Jacobi, Moritz Hermann von (1801-74), a German physicist, born at Potsdam. He went afterwards to live in Russia, and about the year 1839, when a member of the Academy of Sciences at St. Petersburg, made his discovery of galvanoplastik.

Jacobina, a tn. in the state of Bahia, It is situated in a fertile though mountainous region.

about 10,000.

Jacobites, the name given to the followers of the Stuart house after the revolution of 1688. The name is derived from the Latin name 'Jacobus' (James). James II. had numerous followers in all the countries of the British Isles, but the later Stuarts, the Old and Young Pretenders, received their main support from the Scots.

died in the moment of victory Highlands were peaceful with the peace of desolation, after the massacre of Glencoc. In Ireland the Boyne had been fought in 1690 and the Irish defeated (sec JAMES II.), and Ireland also was pacified at the edge of the sword. Ireland, however, was so thoroughly subdued, that during the two subsequent rebellions she played no active part. The reign of Anne was one of constant intrigue plot

only queen. In 1715, the Hanoverians having just been established on the

'Bonnie Prince Charlie,' landed at Moidart with seven followers. He roused the Highlands at once, he swept away opposition at Prestonpans, and proclaimed his father James III. He invaded England and reached Derby, but there he commenced to fall back. A rebellion on the defensive is of a necessity a failure, and Charles was finally overwhelmed at Culloden. After numerous adventures he managed to escape, and died on the Continent, a weak, broken, dissolute His younger brother bedrunkard. came a cardinal of the Roman Church, and thus ended the Stuart line. Every great statesman of the time had intrigued with the Stuarts, from Sunderland and Marlborough down to Newcastle himself. In fact, when Charles reached Derby in 1746, Newcastle

Samuel Johnson.

Jacobs, Joseph (b. 1854), an author and journalist, born at Sydney, New South Wales. He went on a lecturing tour through the U.S.A. in 1896. He has edited Folk Lore, The Literary Fear Book, and The Jewish Year Book, and is at present the literary editor, of the Lorish Encyclopedia. editor of the Jewish Encyclopædia. heir main support from the In 1689 Graham of Claver-on Jewish subjects, and has done a

Gedimin of Lithuania (d. 1342), founded by Jagello (c. 1354-1434), afterwards Ladislaus II. This illustrious line ruled in Poland from 1386-1572, when, with Sigismund Augustus, the male line became extinct. Through his sister's descendants the J. continued on the throne till 1668. Rulers over Lithuania, Hungary, and Bohemia were also chosen from the J.

ie frontier, on the R. Oppa. It has a Minorite monastery, a church (Burgberg), and a castle of the Liechtenstein princes. It is noted woollen industries, and also manufs. cloth, organs, and machinery. Pop. 16,681.

Jagerstontein, a vil. of Fauresmith div., Orange Free State, S. Africa, 67 m. W.S.W. of Bloemfontein. The celebrated Klipfontein diamond mines near rank next to those of Kimberley. J. is on the railway from Cape Town to Pretoria. Pop. about

7500.

Jaggery (Hindustani shakkar), coarse brown sugar of the East Indies, chemically the same as cane-It is made by inspissation from the sap of various palms, such as the J., cocoanut, Palmyra, and datepalms (Phænix dactylifera). The Indian Phænix sylvestris and Caryota urens also yield J., as do also the Nipa fruticaus, Arenga saccharifera, and others. The sap or juice by fermentation becomes palm-wine, from which arrack is distilled.

Jago, Richard (1715-81), an English clergyman and poet, studied at Oxford. He held various livings in Warwickshire from 1746, dying at Snitterfield. His Poems, Moral and Descriptive were published by Hylton in 1784. Among them are: Blackbirds; 'Edgehill . . '; 'Labour and Genius, a Fable. See

Worthics, 1870; ii., 1769.

Jagodina, a tn. of Servia, near the Morava, 17 m. from Kragujevac, with ruins of a large mosque. Pop.

about 5000.

Jaguar (Felis onca), a large American spotted cat of the species large Felida, ranging from Texas through Central and S. America to Patagonia. In form the J. somewhat resembles the leopard, but is more thick set. Its skull resembles that of a lion or tiger. Its movements are rapid and it is very agile. It has a tawny yellow hide, spotted with black, and varies in size from 4 ft. to 6 ft. 9 in. It is generally found singly, and preys upon of Mozart, and essays on music quadrupeds, such as horses, dogs, and

Jagellons, or Jagellones, a royal cattle. It emits terrific roars and dynasty of Poland, descended from cries, particularly during the mating season. From two to four cubs are produced at birth towards the close of the year. In disposition the J. is ferocious and bloodthirsty, and after having tasted human flesh, it occa-sionally becomes a confirmed 'maneater.' It submits somewhat grudgingly to captivity, but may become subdued and even docile. It is usually hunted with dogs and poisoned arrows, though sometimes with the lassoo, and the skins are imported into Europe in large numbers. The black-furred J. is sometimes regarded as a different species, but the characteristic markings can be detected in certain lights. American naturalists divide the species into a number of forms regarded as distinct. but preferably ranked as sub-species.

Jahde, see JADE. Jahn, Friedrich Ludwig (1778-1852), father of gymnastics, or Turnvaler. born at Lanz in Prussia. First served in the Prussian army, and in 1811 started the first gymnasium in His system did much to re-Berlin. vive patriotism and attracted the Prussian youth, but in 1818 gymnasiums were closed on account of the political gatherings held there, which were of too liberal a nature to find favour in the eyes of the J. was Prussian government. arrested and imprisoned for six years (1819-25) as a demagogue. See Lives by Pr

Jahn, Joi

lic biblical Moravia, and became professor of Oriental languages first at Olmütz and then at Vienna (1789). His views of Biblical literature were, however, far in advance of his time, and the boldness of his criticism led to his retirement to a canonry in Vienna in 1806. The more notable of his works include: Archaologia Biblica; Enchiridion Hermenentica; Einleitung in die göttliche Bibel des Alten Bundes; and Biblica Hebraica.

Jahn, Otto (1813-69), a German archeologist and classical editor, born at Kiel. In 1839 he lectured at his native town, and ten years later was appointed to the chair of archmology at Leipzig, where he founded the Archmological Society. chair Owing to his political views he was, for a time, deprived of his pro-fessorship, but resumed his work in 1855, when he accepted the post of professor of archeology and director of the Academic Art Museum at Bonn. His publications include works Greek art, representations ancient life on vases, a masterly Life Gedächtnisrede auf Otto Jahn, 1869.

Jahrum, a tn. and dist. of Fars prov., Persia, 90 m. from Shiraz. The district is famous for its shahan dates, other fruits and tobacco being also exported. Pop. about 15,000.

Jahvist (J), or Yahwist, a shipper of Jahveh or Yahweh. term is now generally applied to the writer or writers of the non-Dcuteronomic portions of the Hexateuch, marked by the use of Jahveh, or Jehovah (the 'sacred tetragrammaton ' of JHVH or IHUH), not Elohim, as the name of God. A Jehovist (JE) is properly one who combined the work of Jahvists and Elohists (E).

Jail Fever is now recognised as a severe form of typhus fever (q.v.). The disease raged in English prisons in the middle ages, breaking out at the Black Assize of Oxford in 1577. It was caught by many attending the assizes at the Old Bailey as late as 1750, but owing to the improvements in sanitation is now of rare occurrence. Sec Howard, Account of the State of Prisons, 1777.

Jainism, the doctrine of the Jains. a wealthy and influential Hindu sect. mostly found in the western district of Upper India. It is allied in many respects to Buddhism, but appears to have developed from Brahmanism at an earlier date than Buddhism did. Its origin is attributed to Vardhamana Mahavira, who lived about the end of the 6th century B.C. The sect of the 6th century B.C. The sect flourished greatly between the 3rd and 8th centuries, but subsequently dwindled owing to persecution by the Brahmins. In 1901 the number was given as 1,335,000. The Jains, like the Buddhists, deny the divine origin of the Veda. They believe in the separate existence of the soul after death, even of animals, and this belief leads them to take great care of animal life. They brush seats before sitting, and drink only water that has been strained, never leaving it uncovered for fear that some insect may They have to be drowned in it. practise liberality, piety, gentleness, and penance, and must make a daily visit to the Jain temple. Their principle is to suppress the body by abstinence, continence, and silence. stinence, continence, and During certain seasons they abstain from honey, grapes, fruits, salt, to-bacco, and other articles. The member sculptures are the principal bacco, and other articles. The members of the religious order of the Jains bers of the religious order of the sculpture are the principal manufs. Pop. 137,098.

Jaisalmir, Jaisalmer, or Jessulmir, order Sagnetse the miles for the chief Rajput states of one of the chief Rajput states of one of the chief Rajput states. order Sravakas, the rules for the former being stricter than those for the latter. The J. are not divided into castes, except in the S. of India, but they have certain family groups between which marriage is not allowed. Formerly they advocated Sukkur. There is a strong fort on the leaving the body naked, but this hill with many Jain temples. Trade practice is now confined to mealtimes. in wool, camels, sheep, and cattle is

Their ---- '-many ence d

give the sect its name. These saints are seventy-two in number, twentyfour each of the past, present, and future ages respectively, the earlier of them being of gigantic proportions. who lived enormous lengths of time. while the most recent resemble ordinary humans in these respects. The J. are responsible for many beautiful temples, notably Mount Abu and Mount Parasnath. Their temples are usually constructed with pseudo-arch and dome, built in horizontal courses and with pointed section.

Bibliography. — Thomas,

Jainism. or the Early Faith of Asoka, 1877; Rhys Davids, Hibbert Lectures, 1881; Jacobi, Jaina Sutras (vols. i. and ii.). 1895; Burgess, Buddhist and Jainist Caves (2 vols.), 1881-83; Fergusson, Cave Temples of India, 1880: J. G. Buhler, On the Indian Sect of the Jains,

Jaintia Hills, a mountainous district, forming with Khasi a dist. of Assam, India. It lies S. of Brahma-putra valley, E. of the Khasi Hills. Area about 2000 sq. m. The in-habitants call themselves Papars, but are known as Santengs (Syntengs) by the Khasis. Coal and limestone are found, and rice is grown.

Jaipur, or Jeypore: 1. A state of Rajputana, India, covering an area of 15,579 sq. m. The central portion is a sandy table-land about 1500 ft. above sea-level, but in the N.W. the surface is broken by a spur of the Aravalli Mts. Jeypore came under British protection in 1818, and is one

of

large quantities of salt abound. Pop. 2,636,647. 2. The cap. of above state, 850 m. N.W. of Calcutta, and 84 m. N.W. of Ajmere, It is a walled city, well built, with the maharajah's palace in the centre, and is the chief commercial centre of Rajputana. Buildings of note are a college school of art, industrial and economic museum, observatory, mint, hospital, and several mosques and temples. Fabrics, enamelled gold-wares, and

the W. 10 sq. m.

datory state, was founded in 1156 by Rawal Jaisal, and is 136 m. from

carried on. Pop. of state, 73,000; and hospital.

tn. about 7000.

Yaïtce), Jaice (pronounced ancient tn. of Bosnia, on a hill near the junction of the Pliva and Vrbas The town possesses an interesting 14th century citadel and a ruined church (15th century), the legendary burial-place of St. Luke. Pop. about 4000.

Jaipur, or Jaipore, a tn. of Bengal Presidency, British India, 43 m. from

Cuttack. It is a place of pilgrimage.
Pop. about 12,000 (mostly Hindus).
Jalalabad, or Jelalabad, a tn. of
Afghanistan, on the route between
Kabul and Peshawar, in a fertile plain
near Kabul R., close to Khaibar Pass.
It is noted for the brave resistance
made by the British under Sale (184142) to the Afghans. Its defences was 42) to the Afghans. Its defences were destroyed on the British evacuation of Afghanistan, 1842. Pop. about 4000.

Jalalpur, or Julalpur: 1. A tn. of the Punjab, India, Gujarat dist., 78 m. N.W. of Lahore, noted for shawls. Pop. about 11,100. 2. A ruined tn. of Jehlam (Jhelum) dist., Punjab, India, 68 m. S.S.E. of Rawal Pindi. It is identified by Cunningham with Alexander's Bucephala, built in memory

of his famous horse.

Jalandhar, Juliunder, or Juliundur, a tn. and cantonment of the Punjab, British India, cap. of Jalandhar dist., 47 m. E.S.E. of Amritsar. It is mentioned in the Mahabharata, and was once capital of the Rajput kingdom of Katoch (4th century B.c.). Pop. about 68,000 (Mohammedans and Hindus).

Jalap, well-known purgative medicine, consisting of the dried root alant belonging

unily. It is a slopes of the

Mexican sierras, growing at an altitude of about 6000 ft., and is named from the town of Jalapa. Jalap-root contains starch, sugar, lignin, etc., but the active principle is a resin present to the extent of 10 per cent, which may be extracted with alcohol. J., which is administered either as a powder or in alcoholic solution, acts as a hydragogue cathartic, and is used in constipation, renal disease, dropsy, and cerebral affections. The ordinary dose of the powder is from 10 to 30 grains.

Jalapa: 1. A tn. in Mexico in the state of Vera Cruz, 60 m. by rail N.W. of Vera Cruz city. Has an altitude of 4330 ft., and is situated in a picturesque and fertile district with a old Francisch monastery, govern-used. It may be anything from ten ment offices, phurch of St. Joseph. minutes to one or two hours. The

Pop. about 20,000. 2. A dept. of Guatemala, Central America. Cap. Jalapa. Chief productions are coffee, the sugar-cane, rice, and maize. Pop. about 34,000.

Jalaun, a tn. of the United Provinces, India, 68 m. W.S.W. of Cawnpur. The surrounding swamps cause cholera and malarious fever. Grain, oil-seeds, and cotton are exported. Pop. about 10,000 (largely Hindus). Jalisco, a state of Mexico, on the Pacific, with a coast-line 280 m. long, and covering an area of 31,846 sq. m. The state is traversed by the Sierra sed by volcanic cones, and Nevado Madre with its Colima (12,750 ft.), and Novado (14,100 ft.), being the highest. The chief river is the Rio Grande de Santiago, flowing out of Lake Chapala, and draining the N. portion of the state. The chief industries are gold, silver, and copper mining, and agriculture. Cotton and woollen goods, paper and tobacco are manufactured. Guadalajara is the capital. Pop. 1,202,802.

Jaina, a tn. in the state of Hyderabad, India, about 215 m. from Bombay. J. has ceased to be a cantonment since 1903. It is famous for its gardens which grow large quantities of fruit. Pop. about 25,000.

of Iruit. Pop. about 20,000.
Jalpaiguri, Jalpigori, or Julpigoree, a tu. and dist. of British India. The town is on the R. Tista, about 300 m. from Calcutta. Pop. about 10,000. The district includes the Western Dwars, and is situated S. of Darjeeling and Blutan, and N. of Kuch Behar. Area 2960 sq. m. The district produces into and lea, and lime is produces jute and tea, and lime is quarried in the lower Bhutan Hills. Pop. 788,000.

Jaipan, a tn. in Mexico, Querctaro state, situated about 85 m. from

Guanajuato. Pop. about 6000.

Jaluit, or Jalut, one of the Marshall Islands in the Pacific. It is the headquarters of a German company trading with the Marshall Islands, and the neighbouring groups.

Jam, the name applied to the preserve formed from fruit boiled with an equal weight of sugar, which dissolves in the juice of the fruit as the latter is broken. The process of boiling sterilises the entire mixture, and causes the juice to develop the essential 'setting' properties due to the presence of 'pectin bodies' always present in ripe truits. J., if carefully and well made, can be kept for several years, though the quality generally deteriorates after twelve esque and fertile district with a or eighteen months, owing to the healthy and temperate climate. The crystallisation of the sugar, etc. The medicinal plant 'slalp' here grows time requisite for boiling J. varies wild. The chief buildings are the according to the nature of the fruit

heating process should be carried on, and cattle, and bee-keeping. over a slow fire, in order not to do cultivation of sugar is not carried on away with the steam which genercontains the aromatic flavouring principles of the fruit. the boiling is hurried, these are carried away by the steam, and for this reason home-made J. is superior to commercial, the latter usually being boiled for a shorter period than the former. When J. is made from lemons and such-like or fruits, it is termed 'marmalade.' The peel of these contains a large proportion of aromatic and flavouring The matter, and towards the end of the boiling process is added to the preserve in the form of shreds. In fruit jellies, the juice of the fruit only is used, not the pulp as well, this being removed by straining. It is then boiled with sugar until ready to 'jelly.' Fruits are 'preserved' by covering with water in suitable utensils and heated to a high temperature, the vessel being closed while hot. In home-made preserves, the actual proportion of sugar averages about 20 per cent.; in commercial, from 10 to 50 per cent.

azur sq. m. The island is divided it is administered by a governor, into three counties: Corny privy council of not W.; Surrey in the E., and t members. The legistic in the centre, each of which consists of fourteen into five parishes. J. is of the people, ten by a mountain range, running E. members nominated by the king or and W., which culminates in the governor, and six ex officio members. Blue Mountain Peak (7423 ft.) in The population in 1911 was 831,383, the eastern region. From this ridge including 630.181 blacks 163.201 flow numerous rivers, which promote luxuriant vegetation, but, with the exception of the Black R., are useless of government (57,379): Spanish for navigation. The Salt R., and the Cabaritta, are navigable for a few miles. Other notable rivers are the Rio Cobre and the Rio Minbo in the Rio Cobre and the Rio Minbo in the S., and the Rio Grande, Martha Brae, m. N.W. of Dacca. Pop. about are Mohammedans. 2. A th. and provincipality of Boundary are Mohammedans. 2. A th. and provincipality of Boundary are Mohammedans. 2. A th. and provincipality of Boundary are Mohammedans. 2. A th. and provincipality of Boundary are Mohammedans. 2. A th. and provincipality of Boundary are Mohammedans. 2. A th. and provincipality of Boundary are Mohammedans. 2. A th. and provincipality of Boundary are Mohammedans. 2. A th. and provincipality of Boundary are Mohammedans. 2. A th. and provincipality of Boundary are Kingston, the seat the foundary and foundary are Kingston, the seat the foundary are kingston, and th

grown are mahogany, balata, ebony, cocoanut, palm, and cacti. There is a cocoanut, palm, and cacti. There is a flourishing trade in fruit, chiefly r. b. of the Jambi R., about 125 m. oranges, bananas, pincapples, man coca, and grape-fruit. Very fine sculptures have been discovered in coffee is cultivated, especially in the its vicinity, district of the Blue Mts. Maize, Indian Jamblichu

to such an extent as formerly. principal manufs. are rum, oils, mineral waters, and matches; there are cigar factorics, distilleries, broweries, etc. The climate of J. is, on the whole, very healthy. By the coast it is warm (mean temperature 80° all the year), but the heat is lessened by cool breezes. The atmosphere is very moist during the two rainy seasons in May and October. Inland and on the uplands the climate is delightfully mild. The island is frequently visited by thun-derstorms. Heavy rains and floods caused much damage in 1909 and 1910. J. was discovered on May 3. 1494, by Columbus, who called it Sant Jago, but it has retained its Indian name *Xaymaca*, 'land of water.' In 1509 it was taken possession of by Spain, but was captured by the British under Penn and Venables in 1655, and was subsequently ceded to England by the treaty of Madrid (1670). The native Indians were by by negroes. The slaves rebelled in British W. Indies, forming part of the Greater Antilles. It is situated in the Caribbean Sea, 90 m. S. of eastern end of Cuba. It is 144 m. long, its greatest breadth being 49 m. Area reatest breadth being 49 m. Area 4207 sq. m. The island is divided into three counties: Communications of the care of the counties into three counties: Communication into three counties: Communication in the care of the

the eastern region. From this ridge including 630,181 blacks, 163,201 flow numerous rivers, which promote coloured, and 15,605 whites. The

are Mohammedans. 2. A tn. and municipality of Bengal, British India, 32 m. W. of Bhagalpur. It contains the iron workshops belonging to the East India Railway Company. about 19,000, the greater part being Hindus.

Jamblichus district of the Blue Mts. Maize, indian Jambienus (1au/Baixos) Chalcicorn, Guinea grass, chinchona, to-denus (c. 283-333 A.D.), a Neo-Plabacco, and ginger are among the tonic philosopher of Chalcis, Colepacuts of the soil. Important in-Syria, flourished under Constantine dustries are the breeding of horses (306-37). He was a pupil of Anatolius (Ἰάμβλιχος)

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ri

disciple of Porphyry, and a popular Christ, to the twelve tribes which are teacher at Alexandria. The preval scattered abroad. The traditional lence of magic, divination. superstition, and sacrifices among the Neo-Platonists was said to be largely due rations was said to be interly due to J. He wrote Life of Pythagoras, and a treatise on Mysteries of the Egyptians. See Hebenstreit, Dissertatio de Jamblichi Doctrina, 1764: Ennapius, Vita Sophistarum; Ritter, Hist. of Philosophy.

Jambu-dvipa, one of the seven con-tinents of the world, in the Mahabharata, embracing the gods' dwelling-place and the mountain of Meru with its 'jambu' or 'rose-apple' tree. Mountains divide it into nine coun-tries, Bharata (India) being the chief. Poetry and Buddhistic works give the name to all India. Others apply it to the mountain districts only (N.W.), and others to the whole of Asia.

Jambusar, a tn. and municipality of British India in the Broach dist., Bombay, situated about 28 m. N.W.

of Broach, Pop. 12,500.

James, the name of three important figures in the Apostolic Church: John, one of the most important of the apostles according to the Synoptic accounts. He and his brother received from Jesus the surname 'Boanerges' explained as meaning 'Sons of thunder.' In Acts i. 13 ff. he is mentioned among those who, after the Resurrection continued steadfast in prayer at Jerusalem. He was the first of the apostles to suffer martyrdom, being put to death in the year 44 A.D. by Herod Agrippa (Acts xli. 1 ff.). Legend speaks of his having nade missionary journeys to Spain, of which country he is the patron saint. 2. The son of Alpheus, was also an apostle. There has been much also an aposuc. There has been much discussion as to whether he is to be identified with (3), but this is generally felt to be impossible. Mark xv. 40 ff. speaks of his mother as a certain Mary, but little is known of him. 3. The 'brother' of Jesus, surnamed the Just, was probably the son of Joseph by a former marriage. Joseph by a former marriage. Hegesippus (see Eusebius, Historia Ecclesiastica, ii., 23) gives a detailed description of his ascetic life. Of the leind that would appear ideal to an Ebionite, and Josephus (Ant. xx. 9) also tells us that he suffered death by stoning in 62 A.D. under the high-priest Ananus. He was the head of the Jewish Church at Jerusalem and seems to have been the leader of the Judaising party, eager for the observance of the law.

James, Saint, The Epistle of, is ransom. placed first among the catholic year, Jar epistles. Its title is short, 'James, a' Duke of servant of God and of the Lord Jesus in 1424 and with his real accession

view identifies this James with James the Just, Bishop of Jerusalem, and those who hold this view place the date of the epistle very early, before the epistle to the Hebrews and pro-bably before St. Paul's first mis-sionary journey. The epistle is therefore not to be regarded as a polemical treatise against the Pauline view of faith, but as an independent address to Jewish Christians from a different point of view. Though the apparent antithesis between the insistence of Paul on justification by faith and the emphasis which James lays upon works is great, so much so, indeed, that Luther characterised the epistle as 'an epistle of straw,' the two views are not contradictory. views are not contradictory. An almost entirely different opinion was held by the Tubingen school, now somewhat discredited. They placed the epistle very late. Schwegler and Hansrath ascribed it to the time of Hilgenfeld to that Domitian, being supported in thus dating it by Holtzmann and Von Soden. Most of these critics consider the epistle to be the work of a member of the Roman Church, writing in direct opposition to the Pauline pro-paganda, for the position of the Tübingen school depends largely on their assumption of an opposition throughout the N.T. between the Pauline theology and that of the older Jewish Christianity. The epistle deals, however, with life and not with doctrine. There was some difficulty as to its admission into the Canon. See Zahn's Introduction to the New Testament, i. (trans. 1909) and com-mentaries by Ewald, Mayor, and writers named in article. James I. (1394-1437), King of cotland, the son of Robert III., Scotland.

at an early age was sent to France by his father. He was, however, cap-tured by English sailors on his way there, and was imprisoned in England by Henry IV. (1406). In the same year and probably a month later than his capture, his father died and he became nominally King of Scotland. The government of Scotland was conducted by the Duke of Albany, the king's uncle, who showed no desire to ransom his nephew. His education was by no means neglected, and he proved himself one of the bestproved himself one of the best-educated princes of Europe. He was also very active and a good athlete. After accompanying Henry V. to France he was, in 1424, restored to Scotland, 'Comments of huge

Scotland. He caused the overthrow of Murdock, Duke of Albany, and his son, and proved so powerful a king that he made many enemies. He crushed the turbulent nobility and was finally murdered by Graham. He was the author of two poems, The Kingis Quair, and Good Counsel.

James II. (1430-1460), the only surviving son of James I. He was brought up during his minority under the care of his mother, the Earl Douglas acting as regent, and after the second marriage of the queen he passed into the custody of Sir Alexander Livingstone. Almost con-tinual civil war waged during the period of his minority, the prize of the victors being the custody of the king. In 1449 J. married and assumed the royal power. He immediately proved himself a strong king. He caused Livingstone to be executed, and later stabbed Douglas with his own hands. He crushed the power of the great nobles, and was supported by the majority of them, and also by parliament. He sympathised with the Lancastrian cause in England during the Wars of the Roses, and after their defeat he attacked the English possessions in the S. of Scotland. At the siege of Roxburgh he was killed by the bursting of a On the whole the governcannon. ment and justice were improved and reformed during his reign.

James III. (1451-88), the eldest son of James II. He became king at assumed power himself. The nobles submitted to him, but his desire for peace and for a quiet life soon began to make him unpopular. His brothers against him; both were plotted against him; both were arrested and whilst imprisoned one of them died. The other fled to England and was recognised by Edward IV. as King of Scotland. War broke out with England, but the Duke of Albany and Richard, Duke of Gloucester (Richard III.) were, wing to the arrives of the barnes.

begins constitutional monarchy in Sauchieburn. He was crowned immediately after his father's death, and at once took over the management of the affairs of the realm. He had little or no trouble with his nobles after the frustration of a plot formed at the beginning of his reign to hand him over to the English king (Henry VII. Tudor), and he was intensely popular with the commons. Hesupported Perkin Warbeck against Henry VII., but the planned war with England came to nothing, and in 1503 the marriage between Margaret Tudor and James IV., which was to result in the union of the crowns, took place at Holyrood. He raised Scotland to the highest position she had yet attained in Europe, and during his reign the Scottish court was refined and enlightened. The accession of Henry VIII. led to continual bickerings between the two countries. and finally in 1513 James declared war. He gained some successes at but was finally overthrown at first, Flodden. He died fighting bravely, and with him perished the flower of Scottish noblity. He was a man of generous nature, and an energetic king.

James V. (1513-42), the son of James IV., he succeeded his father at the age of one year, and between the years 1513-28 the country was in a state of constant turmoil, owing to

the age of nine, and his minority was spent in the custody of Sir Alexander that position. The king fell into the Boyd. In 1469 he married the hands of the Douglases, who kept him daughter of the King of Denmark and prisoner until the year 1528, when he escaped and began to rule himself. He put down disorder with a firm hand, and proved himself a very capable king, but he was unpopular with the nobles, since he restricted their power too much. He was intensely popular with the commons. however, whose rights he preserved, and for whom he built up sound commercial relations with the Continent. He married in 1538 Mary of Guise. He supported the old form of faith Duke of Alban, the control of Gloucester (Richard III.) were, owing to the actions of the barons, able to march upon Edinburgh. Peace was made, but again Albany rebelled and finally died in 1485. The barons, unable to appreciate the peaceful policy of James III. towards England, rebelled and defeated the king at Sauchieburn, where according to tradition, after the battle he was slain by a soldier in the disguise of a priest who was called in to shrive him.

He supported the supportance in Scotland, principally because he in Scotland, principally because he related in the inscription of the nobles, and refused to follow the lead given by his uncle, Henry VIII. led to bad feeling between the two countries, which terminated in 1542 in the outbreak of war. The nobles revenged them selves by deserting their king and leaving him to be overwhelmed at Solway Moss. Shortly atterwards he died, learning as he lay on his death. James IV. (1475-1513), was the died, learning as he lay on his deatheldestson of James III., against whom bed that a daughter had been born to nominally he fought at the battle of him—the later Mary Oneen of Scots.

inm on a high level. His general reading and his intellectual interests show that he had great sympathy sixty years. He was kept outside politics altogether up to the year with the education of the time. He was brought up first of all under the care of the Earl of Mar and bis intellectual from the under the care of the Earl of Mar and bis contess, for both of whom he bast to Tobacco, 1604; Basilikon seems to have had much affection. Doron, 1899.

Later, on the death of Mar, Sir Alexander Erskine took him into his charge. His education was by no means neglected, George Basilikon seems to have had much affection. means neglected, George Buchanan being his principal tutor. The times made it necessary that he should be trained as a Protestant, and therefore the theological side of his education was by no means neglected. It was not until 1583 that James began actually to rule. His rule as James VI. of Scotland was altogether for the good of that country. The long minority, preceded as it had been by religious quarrels, had given the nobility a power and privilege which were far too great for the safety of the kingdom. James broke the power of the baronage and restored the power of the monarchy. Scotland under his rule became quiet and obedient. He gained the favour of the people, and he was able even to curb the pretensions of the Presbyterian Church, and to introduce a form of episcopal government. He had been brought up as a Presbyterian, but he never had any very great love for Presbyterianism. He believed above all in the divine right of kings, and held that the chief supporters of this theory—the bishops—were alone to cruel persecutions of the Covenanters, be supported. In England, however, and later he was again made Lord his career was otherwise. He was High Admiral. He succeeded in accepted by his English subjects largely because the alternative to largely because the alternative to promised to defend the Church and accepting him was civil war. But the laws, and was received as king his pretensions, his intolerance, his with some popularity. He, however, personal appearance, and his manners failed to recognise the strength of the personal appearance, and his manners did much to alienate his subjects. His claim of divine right, which he supported by pretence to powers of into the army, he put down the in-dispensation and suspension of the surrections against him with bloody laws, quickly gained for him enemics cruelties. He assumed the right of laws, quickly gained for him enemics crucities. He assumed the right of in England. The failure of his foreign dispensing with and suspending the in England. The failure of his foreign of policy and his desire to pose as the I arbiter of Europe were also points against his general popularity. He. against his general popularity. He falled also altogether to see the weak-relusive of the first the ness of Spain, and his desire for a churches led to their trial for sedimarriage alliance with that country tions libel. They were acquitted weakened support in England. His amidst the applianse of the nation reign from 1603-25 may be regarded and even of the army which James as one of the essential preliminary had gathered at Houselow to overcauses of the outbreak of civil war in awe London. The birth of a son to

James I. (1566-1625), King of Great
Britain and Ireland (formerly James
VI. of Scotland), the son and only
child of Mary Queen of Scots and her
second husband, Henry, Lord Darnley. Christendom. He was certainly well
He was born at Edinburgh Castle, and
calculated and well read. His books,

second surviving son of Charles I., and was created Duke of York in 1643. During the Civil War he was captured by Fairfax, but escaped to Holland in 1648. During the twelve years which clapsed between this date and the Restoration, he proved himself an able soldier, and was commended both by Turenne and Condé. On the restoration he was appointed Lord High Admiral and Warden of the Cinque Ports. He proved himself an able officer and a wise administrator, and gained a great reputation both for ability and courage. His private life was, however, as immoral as that of his brother, the king. He married Anne Hyde in 1660, under exceedingly discreditable circumstances. He avowed himself a Roman Catholic in 1672, but after the passing of the Test Act, he was forced to give up his offices, and later the Popish Plot drove him to Holland. His exclusion from the throne was pro-posed by the Whigs, but after Charles' triumph he was able to return. He was first made High Commissioner for Scotland, where he instituted cruel persecutions of the Covenanters, Established Church. He violated his promises, he introduced Catholies and he broke every tde.

and the

the English nobles to send a unanimous invitation to William of Orange, without which he would not come. James was sublimely unconscious, in spite of repeated warnings, of what was happening, but awoke to the danger after the arrival of William of Orange in England. He attempted to retreat, and finally fled the country. His first attempt to escape failed, and he was brought back, but allowed

nd, where he ie (1690). He courage, and ardice. Two

other attempts to restore him (the battle of La Hogue, and the Assassination Plot) failed, and after refusing the crown of Poland, James died in the full odour of the sanctity of his Church. He was narrow-minded, and failed to grasp the greatness of the issues against him. To these two causes his failures may be chiefly put down.

James, David (1839-93), an actor, whose real name was Belacco, born in London. He made his first appearance at the Princess's Theatre under but subsequently Kean, appeared at the Royalty in 1863, where he played in Mr. Burnand's burlesque of Ixian, and established his reputation in 1870 with his performance of Zekiel Homespun in the theatres in many parts, but his most other Photographic Processes employed successful was Perkyn Middlewick in Our Boys. This piece was played over James, Henry, Lord (of Heraford)

him destroyed English hopes of a popular, having plenty of adventures Protestant succession, and induced told in good English, though the told in good English, though the characters are mere lay-figures. His style is parodied by Thackeray in Barbazure' in Novels by Eminent Hands. Though J.'s histories are but compilations of no great value, he was for some time historiographerroyal to William IV. From 1850-60 he was British consul successively in Massachusetts, Virginia, and finally Venice, where he died.

James, George Wharton, an Ameri-

making g fornia and Western

Western
clude: The Lick Observatory, 1888;
Nature Sermons; Picturesque Southern California; Missions and Mission Indians of California; From
Alpine Snow to Semi-Tropical Sea;
In and Around the Grand Canyon, 1900; Indian Basketry; The Indians of the Painted Desert Region, 1903.

James, Sir Henry (1803-77), a

director-general of the Ordnance Survey of England and Wales, born in Cornwall. He was appointed in 1827, and was made director-general in 1854. He was also director of the topographical department of the War Office in 1857, and was knighted in 1860. He is famous for having applied photo-zineography to ordnance maps (1859), on which subject he published Heir at Law. He played at various a book entitled Photo-zincography and

Theorem Law. He played at various theatres in many parts, but his most other Photographic Processes employed at the Ordnance Survey Office.

Our Boys. This piece was played over 1000 times, and was claimed as 'the Ordnance Survey Office.

James, Edmund Jones (b. 1855), an American educator and political and social finance and political and social finance are Pennsylvania University (1853-95). Then moved to Chicago. In 1873 he was appointed first Soliciante Processor of Information of Illinois University (1905). His works include the Legal Tender Decisions, 1887; The Canal and the Railway; The Canal and the R mission he appeared with Sir Richard early, he attained some successive for the Times, writer of miscellaneous articles, and in 1822 produced a Life of the Black Prince. followed within the next thirty years by over a hundred books, mostly novels, the remainder histories, plays, and verse. Many of his or more tories, plays, and verse. Many of his life he took great interest in the being one of the best. They were very

literary and artistic society, though his intimate friends were mostly of the Declaration of War by France in his own profession. He was a good responsible to the M.C.C.

James, Henry (b. 1843), an American author, son of an eminent theory and lecturer, born in New York. He and his brother his degree of M.D. at Harvard in New York. He and his brother his degree of M.D. at Harvard in Milliam (a.e.) were in their boxbood 1870, and became lecturer there in William (q.v.) were in their boyhood educated in England, France, and Switzerland, and afterwards at Har-Henry was intended for the law, but took to literature instead, encouraged by Mr. Howells, then editor of the Atlantic Mouthly, in which J.'s theories, he became assistant pro-first story appeared in 1865. For four years he remained in America writing stories and sketches, then in 1869 removed to Product, where he has since moved to the stories and sketches, then in 1869 removed to the stories of the sketches and sketches, the sketches are stories and sketches, then in 1869 removed to the sketches and sketches, the sketches are sketches and sketches, then in 1869 removed to the sketches and sketches, then in 1869 removed to the sketches and sketches, then in 1869 removed to the sketches and sketches, then in 1869 removed to the sketches and sketches, then in 1869 removed to the sketches and sketches, then in 1869 removed to the sketches and sketches, then in 1869 removed to the sketches and sketches, then in 1869 removed to the sketches and sketches, then in 1869 removed to the sketches and sketches are sketches are sketches and sketches are sketches are sketches and sketches are sketches and sketches are sketches are sketches and sketches are sketc published a large number of volumes, including novels, collected stories, travel-sketches, criticism, and biography. In spite, or perhaps because, of the peculiar grace and distinction of his work he was rather long in 'arriving,' his first great success being Daisy Miller (1878). Since then he has won universal recognition as being first in his own particular school, a school so far removed from those of older masters of fiction that it has had to create its own circle of admirers. Intensely subtle and analytic in its portrayal of character. dealing little in incident, but proving the depths of individuality, of in-ternal strife, of closely-woven in-tricacies of thought and feeling, it broaders of anought and feeling, it has nothing in commonwith romances like those of Scott and Dumas, or broad vigorous stories of everyday life as told by Dickens. Very characteristic and noteworthy specimens of J.'s work are The Portrait of a Lady and The Golden Bowl.

James, John Angell (1785-1859), an Independent minister, born at Bland-ford Forum. Dorset. He studied at the Gosport Academy, becoming a qualified preacher in 1803. In 1805 he Anxious Enquirer after Salvation is his best known work.

his best known work.

James, William (d. 1827), a naval! Alemoirs of Femule Sovereigns, historian, practised in the Jamaica followed by Clausterie Sovereigns, but of detained prisoner in the United Charles.

States in 1812, but escaped to Nova. Summer Rambles, 1838, the result of Scotia in 1812, but escaped to Nova. Summer Rambles, 1838, the result of pamphlets on the comparative merits. as an art critic that Mrs. Jameson of the Enrilsh and American parity excelled and her writings on the of the English and American navies excelled, and her writings on the in 1816, but his great work is his subject of art include: Companions

James, William (1842-1910), an American philosopher, brother of Henry J., the novelist (q.v.), took his degree of M.D. at Harvard in 1870, and became lecturer there in anatomy and physiology in 1872. Inheriting from his father a love for subtle reasoning and mental research, together with great power and freshness in expressing

and was reprinted in a condensed form in 1892; he wrote also : The Will to Believe, 1897; Human Immortality, 1898; Talks to Teachers on Psychology and to Students on Life's Ideals, 1899; The Varieties of Religious Experience, 1902; Pragmatism, 1907; A Pluralistic Universe, 1908; and The Meaning of Truth, 1909. His home was at Cambridge, Massachusetts, but he visited Europe on seinvited to del

natural (1899-1901) and the Hippert lectures at Manchester College, Oxford (1908). Honorary degrees were conferred on him by the universities of Padua, Edinburgh, Princeton, Oxford, Dur-ham, and Geneva.

James Bay, an inlet in the southern part of Hudson Bay. It received its name from its explorer, Captain Thomas James. It is about 300 m. long and 150 m. wide, and contains a number of islands. Moose Factory, at the mouth of the Moose R., is an important trading station of the Hudson's Bay Company.

Jameson, Anna Brownell (1794-60), an Irish authoress, born in 1860), an Irish authoress, Dublin. She was for some years governess in the family of Mr. Littlealso in municipal work. He was an Ennuyée (published 1826). In chairman of Spring Hill College, and one of the leading projectors of the marriage proved unhappy, and, with Evangelical Alliance. He published the exception of a short stay with soveral religious books, but his big the exception of a short stay with marriage proved unhappy, and, with the exception of a short stay with him in Canada in 1836, she ceased to live with him after 1829. In 1831 sho published her first important work,

statesman, born in Edinburgh, and studied medicine in London (M.D., Breaking down from overwork in 1878 he went out to S. Africa, settling at Kimberley, where he was very successful, among his patients being President Kruger and Loben-gula. He was intimate with Cecil Rhodes, and when the latter assisted by J.'s influence with Lobengula, established the British S. African Company, the doctor accompanied the first emigrant column to Mashonaland in 1890. Next year, being appointed administrator, he succeeded in checking a Boer trek 4000 strong, organised to dispute the British possession of the country. In 1893 a Matabele invasion brought on a war in which J. took a leading part, and which ended in the conquest of Mataheleland. Returning home for a rest in 1894 he went out again in 1895, and on Dec. 31 led that disastrous raid into the Transvaal which heralded so many troubles. Captured by the Boers, he was sent home for trial and sentenced to fifteen months' imprisonment. Returning unofficially to Africa he became leader of the Progressive party after the war, and Premier on their success in 1904. His measures were liberal; the rebel prisoners were liberated and shortly afterwards restored to the franchise, while strenuous efforts were made to develop the resources of the country. railroads and education receiving special attention. In 1908 his party was defeated, and J. resigned office. He was made P.C. in 1907, and Bart. in 1911.

Jameson, Robert (1774-1854), a mineralogist, born at Leith. He was educated at Edinburgh University for a doctor, but gave up medicine for science. He founded the Wernerian Society in 1808, and was regius pro-fessor of natural history and keeper of the museum at Edinburgh, 1804-54. He published Mineralogy of the Scottish Isles, 1800, as well as many other works, and was editor of Cuvier's Theory of the Earth, and Wilson and Bonaparte's American Ornithology.

to the public and private picture galleries in London, 1842; The House of Titian, 1846; Lives of Early Hallon Painters, 1845; Legends of the Monastic Orders, 1850: Legends of the Monastic Orders, 1850: Legends of the Monastic Orders, 1850: Legends of the Rubens in Antwerp, probably paint-Madonna, 1852. The work upon which her reputation chiefly rests, but also may have studied under Madonna, 1852. The work upon which her reputation chiefly rests, the Evangelists' at that time. He proceed and Legendary Art (first part published in 1848), was completed, after Mrs. Jameson's death, by Lady' James VI.,' 'Charles I.,' 'The History of Our Lord, 1864. See Memoir by Mrs. Macpherson, 1878.

Jamesone, George (c. 1888-1644), a Scottish portrait painter, born at Aberdeen. He practised in Scotland, under the 'Sibyls' and ving his pictures of the 'Sibyls' and Castleman, of the most celebrated yellow the secuted many portraits on his Starr, Bart. (b. 1853), a British colonial 'recurrence of the Scotland, which are in statesman, born in Edinburgh, and Taymouth Castle and Langton return to Scotland, which are in Taymouth Castle and Langton House, Duns, Berwickshire.

James River, the largest river in irginia. It rises in the Alleghany Virginia. Mts., and flows into Chesapeake Bay. It has a length of 450 m., and is navigable for steamboats of 130 tons as far as Richmond (i.e. 150 m. from its mouth). The chief tributaries are the Chickahominy and the Appomattex. Jamestown, the first per-English settlement, was manent

located on this river.

Jamestown: 1. The cap. of St. Helena, situated on the N.W. coast of the island. It is a coaling station, and contains the residence of the governor of the island. Pop. 1400. 2. A city in Chautauqua co., New York, U.S.A., about 60 m. S.W. of Buffalo, situated on Lake Chautauqua, and is much patronised as a summer resort. It is also a manufacturing city. Pop. (1910) 31,297. 3. A former settlement in James City co., Virginia, U.S.A., and was the first English settlement in the U.S. founded in 1607. Only remains, however, of this settlement exist at the present day, and the peninsula on which it stood has become an island. 4. A tu, in the Lydenburg div., Transvaal, S. Africa, situated N. of Barberton in the Kaap goldfields district.

Jami, Nureddin Abdurrahman (1411-92), the last great Persian poet, born at Jam in Khorassan. He wrote lyrical poems and odes, and his collec-tion of romantic poems, Haft Aurang, contains two of his best known, 'Yusuf u Zuleikha' (trans, 1895 by Rogers) and 'Salaman u Absal' (trans. by FitzGerald, 1856). He also published a history of the Sufis and other prose works his chief being, Baharistan, which has also been translated. Jamieson, John (1759-1838),

Scottish scholar and antiquary, born in Glasgow. After studying for the ministry he was ordained to the Antiministry he was ordained to the Anti-Burgher branch of the Secession Church at Forfar in 1781, and after-wards at Edinburgh in 1797. His chief work is The Etymological Dictionary of the Scottish Language (1808), supplement in 1825, and a new tions are editions of Barbour's Bruce, in the fortifications of Aurelius (270. Harry's Sir William and Blind Wallace.

Jamkhandi, the cap. of the native state of Jamkhandi, Bombay, India, situated about 37 m. S.W. of Bijapur.

Pop. about 13,000.

Jammu, Jamu, or Jummoo, the cap. of the state of Jammu and Kashmir. India, and situated about 80 m. N of Amritsar. It was once the seat of a Rajput dynasty, now the residence of the Maharajah of Kashmir. Pop. about 36,100.

Jamnotri, hot springs in Garhwal state, United Provinces, India, situated near the source of the R. Jumna.

Alt. 10,849 ft.

Jamrud, a fort, Punjaub, India. It lies to the W. of Peshawar at the entrance of the Khyber Pass. It played an important part in 1878-79 in the war with Afghanistan. Pop. 1850.

Jamshid, the subject of many Persian poems and legends, is supposed to have belonged mythical 'Peeshdadian' to the Dynasty, and to have built and reigned in Persepolis about 1000-800 B.c., and to have been dethroned by Zohak, the Arabian.

Janeiro, Rio de, sce Rio DE JANEIRO. Janesville, the cap. of Rock co., Wisconsin, U.S.A., on the Rock R. about 70 m. S.W. of Milwaukee. It does a considerable trade in tobacco, and also manufs. cotton and woollen

goods. Pop. (1910) 13,894.

Janet, Paul (1823-99), a French philosopher, born in Paris. He was professor of philosophy in Strass-He was burg University in 1848, and in 1861 became professor at the Sorbonne, and a member of the Academy of Moral and Political Sciences, receiving prizes from this institution in 1855 and 1858 for La Famille and Histoire de la Philosophie dans Histoire de la Philosophie dans l'antiquité et dans les temps modernes. He also wrote Les Causes Finales, which has been translated: Histoire de la Philosophie; Philosophie de la Revolution Française; and Théorie de la morale. He was a lucid if not original writer, and in philosophy was a follower of Cousin.

Jang, Bahadur (1816-77), Prime Minister of Nepal, was a nephew of Prime Mataber Sing, who was a high tune-tionary in Bengal. In 1834 he was volcanic formation the hignest moun-made commander-in-chief of the tain being the Beerenberg in the N. Nipalese army, and in 1846 made himself prime minister when the covered by Henry Hudson in 1607, former holder of the title was mur-dered. He kept on good terms with though others since his time have claimed to have discovered it—that The Beelish visiting England in of Jan Mayen in 1611 being quite ance in Oudh in the mutiny of 1857.

edition in 1879-87. Among his publica-| portions beyond the Tiber included 275 A.D.).

Janin, Jules Gabriel (1804-74), a critic and novelist, born at Etienne. He made his reputation by his dramatic criticisms in the Journal des Débats. He was a writer of books of travel, essays, historical treatises, and novels, and distinguished himself as a partisan of the classic school against the romanticists. His L'Ane mort et la Femme guillotinée, 1829, was a clever parody of Victor Hugo. This was followed in 1831 by Barnave (his best novel), which gives a striking picture of the first French Revolution. was elected to the French Academy in 1870.

Janina, Yannina, or Yanina, the cap. of the vilayet of Janina. Albania, is situated in a picture-que position, about 50 m. from the shore opposite the island of Corfu. It is the seat of a Greek archbishop, and possesses many mosques and churches. and silver embroidery are still produced in the city; exports are but few, imports being double their value. Ιt was the stronghold of Ali Pasha, the tyrant of Epirus, from 1788-1818; was besieged and captured by the Greeks during the Balkan War, 1913. about 25,000.

Janizaries, a renowned force of Turkish soldiery established in the 14th century. Down to about 1600 they were composed of forced levies of Christian youths, to whom were added young captives taken in war. both Trained military were taught to their only home, and for centuries they were the flower of the Ottoman troops. Receiving no pay except during war, they were allowed to work at trades and to act as police. They frequently mutinied, and at length in 1826 a flual revolt at Constantinople resulted in their annihilation. Janjira, a native state, Konkan

div., Bombay, India, having an area of 324 sq. m. The cap. is Murud, and the fort of Janjira lies on an island at the entrance of Rajpuri Creek. Pop.

about 85,500.

Jan Mayen Land, an island in the Arctic Ocean, lying between Green-land and Norway. The island is of

Jannes and Jambres, the legendary Janiculum, The, a hill opposite to names of the two wizards who with the city of Rome. It was one of the stood Mo-es (Ex. vii. 2; 2 Tim. iii. 8).

According to some traditions they were the 'two youths' (R.V. 'servants') who accompanied Balaam when he went up to curse Israel Jansen, Kristofer Nagel (b. 1841), when he went up to curse Israel (Targum i.; Numb. xxii. 22). They were the subject of many legends, and a book Panitentia Janus et Mambre is referred to among the apocryphal books by Origen. See Schürer, Gesch. iii. 292 et seg (1886-90).

Jansen, Cornelius (1585-1638), a

Flemish divine, founder of the school of theology known as Jansenism. He studied at Louvain and Paris, returning to Louvain as a professor in 1616. During the preceding century that university had been one of the chief centres of the controversy between the Augustine and Jesuit parties, the former holding strict anti-Pelagian, the latter semi-Pelagian doctrines. The leading Augustinian champion was Baius, chancellor of Louvain, whose writings, through Jesuit influence, were condemned by a papal bull in 1567. Later on the Molinists, a Jesuit faction, carried their contentions to such excess that in 1611 further controversy was forbidden by the pope. A Jesuit theological school established at Louvain was bitterly opposed by the university authorities, headed by J., who, when on a mission to Madrid (1626), narrowly escaped being arrested by the Inquisition, but later, finding favour with the Spanish political and in miniature. government for certain writings, he was made Bishop of tant, yet some of his tenets, nearly approaching Calvinism, were so fully expressed in his Augustinus (published posthumously) that in 1649 five propositions taken from it were He was awarded the gold medal in condemned by the Vatican. Some of Berlin in 1893, and in 1895 became his friends, especially the fathers of director of the academy at Düsseldorf. Port Royal, headed by Arnauld, de-His chief work is Walther Dodde and Port Royal, headed by Arnauld, defended these same propositions, and though in 1653 they were declared heretical, Arnauld would not give yay. In 1656 he was degraded and exiled, and in 1661 his adherents were ordered to sign a renunciation of his matics and physics, and in 1857 went teaching on pain of imprisonment. A truce was established in 1669, and A truce was established in 1669, and for thirty years the Jansenists, protected by some powerful friends, maintained a precarious footing in France. In 1703 Louis XIV., under the control of the France. In 1703 Louis XIV., under out magnetic experiments. He objective in instigation, began a flerce served the solar eclipse at Guntur in attack on Jansenism, and in 1713 1868, at Algiers in 1870, in Siam in Clement XII. issued the bull Unitary at Alcosebre in Spain in 1905. He noted the transits of Venus in at Nagasaki in Japan and in in France, though in France, though

proved the stronger. to reformers withdrew where they formed a church, of which some congregations still survive. The greatest contribution to Jansenist

a Norwegian author, born in Bergen. He was director of the high school at Gudbrandsdal for some years. His books give very fine sketches of peasant life; some of them are: Han og ho, 1868; Marit Skjölle, 1868, both of which are written in 1808, both of which are written in the peasant dialect; Norske Dikt, a volume of poems; Jon Arason, an historical tragedy; The Spell-bound Friddler, 1880, a Norse romance; De Fredlöse, 1894; Lys og Frihed, 1892; Sara, 1891; and Torgrim, 1872.

Jansenville, a municipality in the div. of Jansenville, Cape of Good Hope, situated on the Sunday R.

Pop. 1300. Janssen, Cornelius (c. 1590-1665), a Dutch painter, born probably at Amsterdam. He came to England in 1618, and was taken into the service of James I., whose portrait he painted several times. He remained in England till 1648, and then settled at the Hadue. His chief pictures are a portrait of Sir George Villiers, father of the famous Duke of Buckingham; portrait of Charles I. (in Chatsworth House); and William Harvey (in the Royal College of Physicians); J. made a great reputation as a portrait painter, and worked both on panel

Janssen, Peter (b. 1844), a German Ypres. He was strongly anti-Protes historical and portrait painter, born tant, yet some of his tenets, nearly at Düsseldorf. He studied both under Karl Sohn and Bendemann, and gained a great reputation by his historical pictures and portraits. He was awarded the gold medal in

magnetic equator. A greater part of the years 1861, 1862, and 1864 were spent in Switzerland, and in 1867 he went to the Azores, where he carried out magnetic experiments. He ob-

The leading was appointed director of the new to Holland, astrophysical observatory at Meudon,

He made an investigation of the solar spectrum.andendeavoured to discover whether the sun contains oxygen or With this end in view he erected an observatory on Mont Blanc, and made ascents in 1888, 1890, and 1893,

but his results were practically nil.

Janssens, Victor Honorius (16641739), a Flemish painter, born in
Brussels. He was annointed mainter He was appointed painter Brussels. to the Duke of Holstein, and later, in 1718, became painter to the Emperor of Germany in Vienna. He studied for some years in Rome, where he became intimate with Tempesta, frequently painting figures for his land-scapes. Some of his pictures are; 'St. Roch curing the Diseased'; 'The Sacrifice of Eneas'; 'Dido ordering the building of Carthage.

Janssens van Nuyssen, Abraham (c. 1567-1632), a celebrated Flemish painter, pupil of Snellinck, and rival of Rubens. He was a good colourist and master of chiaroscuro, his torchlight scenes being especially fine. Among his best works are: 'Resurrection of Lazarus'; 'Descent from the Cross'; and 'Ecce Homo' (Ghent); 'Entombment' (Antwerp); 'Scaldis

' Day and Night.

Janthina, see IANTHINA.

Januarius, St., or San Gennaro (d. 305 A.D.), a martyr, and the patron saint of Naples. Legend relates that he was bishop of Benevento under Diocletian, and that he suffered martyrdom, accompanied by most atrocious tortures, during that emperor's persecutions of the Christians. His body is preserved at Naples, and two phials which contain his blood are shown twice a year when the miracle of the 'liquefaction of the blood' is supposed to occur. See Acta sanctorum (September), vi. 761-891.

January, the first month of the modern year, containing thirty-one days. The name is derived from the Roman two-faced god 'Janus,' to whom it was dedicated. The Angles and Saxons called the month 'Wulf-worth', because cold and hyperstrip. monath,' because cold and hunger induced the wolves to enter the villages at that season. It was formally adopted by all European nations as the first month of the year in the 18th

century.

crete, as the gates of public or private buildings, and abstract, as the beginning of the day, of the month, of the year, in which capacity the the year, in which capacity the fifth month of the year was dedicated into monto of the year was dedicated to him. The only priest of his worship was the Rex sacrorum, the king in his capacity as religious head of the state, but every head of a household was in reality regarded as his 'flamen.' His worship was probably introduced by Romulus, and Numa built him an 'archway' (erroneously called a temple) which was always kept onen in times of war and shut. kept open in times of war and shut in times of peace. See J. S. Speyer, Le Dieu romain Janus, 1892; Warde Fowler's Roman Festivals, 1908, and

Gifford Lectures, 1910. Janvier, Louis Joseph (b. 1855), a diplomatist and author, born in Hayti, educated at Hayti and Paris. He passed examinations in the administrative, diplomatic, political economy, and finance sections (1883-87) in the Ecole des Sciences Politiques. J. was secretary of legation in London (1889-92), charge d'affaires of Hayti in England (1892-1901), councillor of the Haytian legation in London (1909-10), and Berlin (1910). His works include: La Philisic pulmonaire . . ; Les Antinationaux; De l'Egalifé des races ; La République d'Hatit . . ; Humble Addresse aux Electeurs de la Commune de Port-au-

Prince . . ., 1908-9.

Jaora, a native state of Malwa, Central India, having an area of 581 sq. m. The town of the same 581 sq. m. name is situated about 20 m. N.E. of

Ratlam. The state produces millet, cotton, maize, and poppics. Pop. 24,000.

Japan, or Nippon ('the origin of the sun'), the long chain of islands that constitute the empire of J. lies off the E. coast of Asia, divided from the continent by the Japanese Sea and washed by the Pacific Ocean on their eastern shores. The Kurlles, or the Navied Isles, 'form their northern the 'Myriad Isles,' form their northern limit, divided from Kamchatka by the Kurile Strait, while their most southerly point is Formosa, or southerly point Taiwan, which, with the Pescadores, was ceded to J. by China in 1805. The peninsula of Korea, or Chosen, is century.

Janus, one of the oldest of the diddent of the Janus, one of the oldest of the latin gods. His name is probably derived from the same root as janua, chosen (81,102 sq. m.) was annexed a gate, although some authorities by J. in 1910. Of the large islands regard it as the masculine form of Diana (Jana). He was considered the spirit of opening, and is northerly is Sakhalin (or Saghalien), generally represented with two heads only the southern half of which look both wars. He was belong to J. ceded by Hussia in generally represented with two heads only the southern half of which which look both wars. He was belongs to J., ceded by Russia in invoked at the beginning of any 1905; it is called Karafuto by the enterprise before any other of the Japanese (area 13,151 sq. m.); divided gods, and he was invoked as the by the Gulf of Tartary from Asiatic patron of all 'openings,' both con- Russia. S. of Karafuto lies Yezo, or

.Hokkaido (36,299 sq. m.), and S. Nikko Mts. are another range famous again is Honshiu, or Hondo, the largest isle of all (87,485 sq. m.), countless waterfalls. The highest this is known as the mainland; peaks of all are Niitakayama below this follows the isle of Shikoku (14,270 ft.) and Mt. Sylvia, both in (16,840 sq. m.), then comes the chain multitude of ranges which exist of little islands known as Luchu, through all the islands. The mounthich link un Ecomosa or Taiwan fain scenery is not rugged it is soft which link up Formosa, or Taiwan tain scenery is not rugged, it is soft (13,839 sq. m.), to the long straggling and beautiful, the vegetation of the cluster of islands that form Nippon, or J. (the total area is about 175,540 of J., or including Korean territory, nearly 260,000 sq. m.). The coast-line is usually long in proportion to the area with the exception of Hondo. On the eastern shore the Pacific. Ocean has indented the coast outline considerably more than the Sea of J. upon the W. There are only two large bays on the E. coast, those of Sendai and Matsushima. there are hundreds of smaller indentations. Further S. lies Tokyo Bay, the Gulf of Sagami, and the bays of Suruga and Isc. The famous inland sea that separates Shikoku inland sea that separates Shikoku from Kiushiu is one of the loveliest sheets of water in the world. It measures about 1325 sq. m., and is studded with beautiful little islands. Four narrow waterways connect it with the Pacific Ocean and the Sca of J. On the W. Shimonoseki Strait, on the S. Hayamoto Strait, and on the N. the Straits of Yura and Naruto. On the western shore of On the western shore of three promontories, lie Nomo, Shimabara, and Kizaki, en-closing a bay on whose shores stand Nagasaki and the naval port of Sasebo. On the S. of Kiushiu lies the bay of Kagoshima, further N. the inlet of harbour c

tains, many being volcanic, some fow of which are still active. The long, its mouth being Shimosa. The most famous mountain, both for its Shimosa in Waters the plain of height (12.395 ft.) and for its singular beauty of form and setting, is "Fuji-yama, or Fuji-san; it lies a short of the rivers are short, rapid, and distance from the great port of shallow, gaining depth when the Yokohama in Hondo; the slopes are cultivated as far up as 1500 ft. then moorland and forest stretch up to the summit, which is crowned with ashes and scorie; the absence of flowers is and scorie; the absence of flowers is a revery beautiful, the largest being due to the recent activity of the great perfect shape, and the Japanese lake artist has made its picture familiar. artist has made its picture familiar is much loved by the Japanese. Lake by constant reproductions; eight Suwa in Shinano is also celebrated by constant reproductions; eight suwa in Siniano is also celebrated lakes lie at the foot of Fuji-san and digreatly to the beauty of the story. The eight lakes at the foot of the slopes of Fuji-yama scenery. Among the highest mountains after the Fugi range are those in the provinces of Hida and Etchui, six of these rise to 9000 ft.; they are known as the Japanese Alps. The diorite, granite everywhere pre-

hill-sides is exceedingly brilliant; the highest peaks do not carry snow all the year round. One famous mountain on the boundary of Hiuga, known as Kirishima-yama (5538 ft.), is especially sacred to the Japanese, because the god Ninigi descended on its eastern peak and introduced the Japanese emperor, Among all these mountains are many volcanoes, which after long intervals of silence suddenly become active. such as Bandai-san (6037 ft.) that burst into terrible activity in 1888 and destroyed utterly seven prosperand destroyed actery seven prosper-ous villages and hundreds of people. Fuji-yama itself is a volcanic peak and appears to be extinct, but the history of other volcances forbids the people to wholly trust its present peaceful appearance. The volcanic character of the country has given J. one great gift in the shape of numberless hot springs, widely re-puted for their medicinal value.

has several extensive plains; that of Kwanto, which is very fertile, holds the capital, Tokyo, and the town of Yokohama. None of the rivers are of any considerable size, though pro-bably no country is so well watered by a network of streams and lakes. of Maizur
The longest river is the Tshikarigawa (275 m.), and one of the most
tains, many being volcanic, some
important is the Tone-gawa (177 m.
few of which are still active. The long), its mouth being Shimosa. The

dominating; the granite is not always pure, thus, in the valleys of Nikko a granite-porphyry is found with crystals, felspar, and quartz, etc. The soil is usually workable and prolific, and along the banks of the rivers fertile and well adapted for the cultivation of rice. The climate necessarily varies in different parts of the empire owing to the long extension of the islands. Its general characteristics are heat and moisture through the short, bright summer, followed three wet seasons, the first from the middle of April to the beginning of May, the second from the middle of June to the beginning of July, and the third from September to early in October. In the more mountainous districts of the islands the snowfall during the winter is very deep. J. is, in reality, rather a wet country, although the brilliant sunshine assists in making a healthy climate, yet bad fogs are prevalent even during the The typhoon, or great summer. wind, is a terrible visitor, especially during September, though few months escar force. Nearly been expend.

damages caused by the typhoon, including the destruction of ships, villages, roads, embankments, and bridges, etc. The islands also suffer from frequent earthquakes, accompanied by tidal waves which claim thousands of human victims.

Flora.—J. has a great and beautiful variety of vegetation, the colours of the foliago in spring and autumn being unsurpassed in richness and range of shades. Many English the baye mained in beauty by

nuts, birch, enestnut, camputtrees, and especially the weeping willow and maple grow freely, while everywhere the bamboo is seen growing in beautiful clumps. Among the queens of the flowering trees the plum must come first, so graceful in its growth and in its profusion of beautiful blossom and so wonderful in its richly coloured foliage. The cherry tree is even more beloved by the natives, who stand among the world's greatest and most artistic gardeners. The wealth of bloom on these exquisite fruit trees should be placed among the many delightful and attractive things to be seen and The peach tree also enjoyed in J. blooms with amazing profusion, but all these three, the plum, the cherry, and the peach, bear only blossoms and no fruit worth mentioning. The plumage. Eagles are found but Japanese pyrus, or pear tree, and the recently in smaller quantities. The malus, or apple tree, have become crane is a sacred bird, being honoured

familiar to English gardeners, and should be much prized for their gay colouring and cloud of blossoms; among the apple varieties the apple among the apple varieties the Floribunda is especially hardy and beautiful, and every garden should possess at least one. The magnolia blooms in great perfection, also the azalea, chrysanthemum, peonies, iris, hydrangea, camellia, gum cistus, etc. We owe many of our most graceful and brightly coloured shrubs and flowers to Japanese gardeners. As a race they love the art of gardening, and at no time is the country devoid of blossoms of some kind. landscape and water-gardens creations of beauty, and the miniature, or toy gardens, are an astonishing example of patient care and study. In fascinating little places a perfect tree such as a cedar may be a hundred years old, yet dwarfed to attain only years old, yet awared to accan only a few inches in height, though perfectly complete in its proportions. Lilies grow wild in great variety, and the lotus lily during the summer months covers the lakes and rivers with its delicate blooms. Ferns are found everywhere in great quantities; there are over 150 different species. The chief fruits are the orange, grape, pear, apple, loquat, peaches, raspberries, and persimmons; they are however, often rather tasteless and Vegetables are inclined to be tough. well cultivated, and many curious and palatable roots have been introduced from J. to Europe during recent years.

Fauna.—There are several kinds of wild animals, the black bear is found visitor, carried down by the Arctic

Badgers and foxes are

us, and are credited tural powers: monkeys abound all over the islands; there are no rabbits, but harcs are plentiful. Wild boars and stags, also antelopes, exist in the mountainous districts: otters and sea otters are numerous and much valued for their fur. The squirrel and the rat are very common, but there are no mice. The bird life carries a large variety, water fowl is very plentiful, wild geese, ducks, teal, and herons, especially the silver The bird life heron (beloved by Japanese artists), are seen in large numbers, also the kite, falcon, and sparrow-hawk.

there are two varieties of the much, one known as the copper pheasant, being remarkable for its beautiful

as an emblem of longevity. Among tendency to prominent cheek-hones the smaller birds the Uguisu comes first, a species of nightingale gifted with a very beautiful song. cuckoo, lark, hoopoe, blue-bird, starling, wren, kingfisher, and various finches, etc., are all inhabitants of the islands. Among the thirty species of reptiles are a very few turtles (highly valued when caught), many tortoises, ten varieties of snakes, only tortoises, ien varieties of snakes, only one being venomous, lizards, frogs, toads, and newts are plentiful, and the giant salamander, which has been said to attain a length of 5 ft. Fish forms a very large part of the food of the Japanese, it is most wonderfully plentiful both in the sea and the views and lalaes. rivers and lakes. Among the chief are the bream, perch, mullet, mackerel, haddock, and salmon, etc. The gold carp and the gold fish, so prized for their beauty, are very numerous. J. is rich in beautiful numerous. J. is rich in beautiful insect life, the golden and the jewel beetle, and the many kinds of brilliant butterflies of tropical beauty; difference are seven kinds of silk moths and from the cocoon of the moth cestor-worship. It regards human caligula Japonica, fishing lines are manufactured. The singing cricket seeded from the gods, and assumes and the cicada are common everythat an individual's conscience is his true guide. The dead are ghosts, inspiders abound and atter a world of darkness with the proportions. In the lakes brilliant butterflies of tropical beauty; proportions. In the lakes

dence of another primi has been found, so-called who dug pits in the earth

very muscular, but man distinguishable, the mosbeing an element of the

follow the Manchu-Kore: traceable.

more refined : women (accor are frequently

and flat noses becomes more obvious. They are straight-haired and usually very dark. As a race they are an happy, light-hearted happy, exceedingly Children occupy an impeople. portant place in every family; J. has been called rightly the paradisc of children.' The present condition of women is based upon the principle of equality of sexes. As a wife and mother, the Japanese woman enjoys a position of freedom and respect. If single she may and often does adopt children and becomes 'house-head' of her legal family. The general character of the Japanese woman is especially worthy of mention, they are unselfish, modest, kind-hearted, and patient, obedient as daughters, faithful as wives, and devoted as mothers. Both men and women are by nature frugal and industrious and share in a passionate love of their country.

Religion .- The original religion of J. is Shinto (the divine way), a mixture of nature-worship and an-cestor-worship. It regards human

There or have the principal divinity is Amaterasu, the principal divinity is Amateras bringing sorrow or joy into trade. The present population of J. dhism reached J. (552 A.D.) through consists of two distinct races, the korea, and the two religions became Ainus, or Ainos, and the Japanese. so intermixed it was difficult to dis-Ainus, or Ainos, and the Japanese. so intermixed it was difficult to dis-The Ainus are probably the original entangle them. Buddhism. however, The Ainus are proposity the original gradually absorbed the greater part race of the main island, Hondo. Evigradually absorbed the greater part gradually absorbed into various are tolerated and

they choose; every them over to live in. The Japanese kind of Christian denomination of the present day do not differ physically very much from the Korean and Chinese. The main part converts remains very small, about of the race is short of stature and 130,000 out of 50,000,000. The very musqular, but man nally adapt whatever illow to their own re-

and government.— Mongol, and lastly the session of the Emperor Although the whole race presents of the Emperor Although the whole race presents Jimmu in 660 B.C. until ISS9, the certain marked physical characteristics, the different types are still monarchy, but in 1889 the emperor, istics, the different types are still monarchy but in 1889 the emperor. . gave J, its present

emperor, called by ' ikado,' and by his stands at the head of the state. The soil. according to the provisions of the present constitution. The ministers are appointed by him and they are solely responsible to his majesty. The privy council, which is an advisory body, sits when consulted by the em-The House of Peers presentatives. classes of members: four holds (1) Hereditary members, princes, and marquises, who may sit at twenty-five years of age. (2) Counts, viscounts, and barons, elected, having attained their twenty-fifth year; the proportion of these is one to five peers. Men of distinction who nominated by the emperor. (4) Representatives of the highest tax-payers nominated by their own class. tax-The House of Representatives is composed of 379 members velected by qualified electors. members who Voting is by ballot, one man one vote, and a general election takes place once in four years for the Lower House, and once in seven for the Upper House. The members of the House of Representatives receive a salary of £200. For the divided For : into lows: s, fortythree rural prefectures, and three special dominions. Each division is named after its chief town and forms the seat of local self-government, dealing with finance and municipal improvements, etc. The present laws of J. are based upon the continental Poman law. The courts of justice are classed as: District courts, local courts, courts of appeal, and the cassation nf Or supreme Juries are not employed and court. judgeships are obtained by examina-

Agriculture.—Over 60 per cent, of the population are engaged in agri-culture; it is J.'s most important industry. Small holdings are the general rule, rarely exceeding eight acres. The soil is not particularly fertile, and hard work and hard aving nave made the rich rice fields is supplemented from China and what they are. Rice is, of course, the Korea. Gold is found and worked, chief crop; it forms the principal but not in great quantities; silver is food of the people, and is also the hational drink, saki. is a summer crop, harvested September: the fields are floods while the grain is young and the drained. Barley can be grown du.

subjects 'Tenshi' (son of heaven), ing the winter months in the same The following are the chief stands at the head of the state. The soil. The following are the chief present emperor is the 122nd of his products and the area under culline, an unbroken dynasty since the tivation: Rice, 7,226,000 acres; barbeginning of the country's history, lev, 1,520,000 acres; naked barley, 1,656,000 acres; wheat, 1,656,000 which is in the emperor himself, acres; soya bean, 1,137,000 acres who exercises his rights of sovereignty of the important crops are millet, according to the provisions of the small red beans, buckwheat, rape seed, potato, sweet potatoes, tea, tobacco, indigo, hemp, sugar-cane, and peppermint, etc. The paper mulberry is extensively grown, its fibrous tissue being the chief material body, sits when consulted by the cmiperor, who may or may not follow used for Japanese paper. Barley is
their advice. The Diet consists of the grown with particular care as it proHouse of Peers and the House of Revides the material for straw-plaits which is an important manufacture. Stock-breeding is not very extensive at present, pasture land being scarce. The growing liking for beef among the people has diminished the in-digenous cattle, but various foreign breeds are imported. Sheep and pigs are on the increase but the natives prefer beef. Goats are kept for their milk. The rearing of silk-worms is a very important asset to the small farmer. Japanese silk has long been The chief silk - producing famous. prefectures are Nagano, Gumma, Yamanashi, Fukushima, Aichi, and Saitama: thousands of families are engaged in its production and manufacture. The average amount of raw silk produced in a year is 22,644,604 lbs., and of waste silk 9,060,318, total value £13,431,997. Lacquer and vegetable wax are two important productions.

Industries.—The industrial progress of the country has made rapid strides. Labour is cheap and plentiful. Machinery has been largely introduced. The textile and allied industries rank first, employing about 486,508 persons, then follows machine and tool factories, chemical works, food and drink factories, paper ware, leather ware, matting, straw-plaits, feather ware, and bamboo factories, and several others. The manufacture of matches has increased enormously, and become an important industry. employing about 18,000 Sugar relining is also growing, but the more ancient industries such as matting, lacquer, and porcelain, remain unchanged. The country produces enough coal for its own use, reaching 12,000,000 tons a year. The

> bally valuyearbeing per cent. is covered

with forest, from which a quantity of | India buys two-thirds of the raw good timber is obtained; there are 700 private saw-mills besides those owned by the government. Large groves of bamboo furnish material for building, ornamental work, and tools, etc. Another smaller industry furnished by the forests is the cultivation of mushrooms; these are dried and exported to China and India. Camphor is another valuable gift from the forests, though the industry is now chiefly in Formosa, where large camphor forests are found. The fishing industry is of very great importance, employing 1,740,000 men, the value to the empire annually naturally varies, but roughly may be put at £9.000,000. The industry of saltrefining is of some importance, about 580,000 tons being produced in the year.

Railways and communications. Railways have made rapid strides lately; there are now 6,279 miles of rail-road, chiefly owned by the state. The first line ran between Yokohama and Tokyo, opened in 1872. After the war with Russia in 1904 the state

is modelled on Western lines, and J. became a member of the international postal union in 1877. Telegraphic communication commenced in 1867; much trouble occurred with the more ignorant section of the public who persisted in believing it was an ovil thing. In 1884 J. joined the telegraph union. The telephone was adopted in 1877, a year after it was invented. Wireless telegraphy is now in use for the army near and chiral section. in use for the army, navy, and shipping industry. Roads in J. are divided into three classes: state roads, prefec-tural roads, and villageroads. They are generally well kept, and the government gives an annual grant for assisting their upkeep and improvement. The first electric tramway was constructed in Kyoto in 1895; there are now several electric railways and tramways running in the larger cities. Drainage has improved rapidly, the usual Western methods of street scavenging being employed in all the towns and cities. Cremation is encouraged with much success, and crematoria have been established in Tokyo and Osaka; other like places are now being arranged all over the empire.

Shipping.—J.'s shipping industry is well on the increase. Her exports grow in bulk annually, having increased fourfold in the last few years. The chief are silk, cotton, grain, and seeds, tea, and marine products, etc. By 1876 the army on a war foot The United States and China take the bulk of these, then Britain, while 1877 successfully met the Satsuma

cotton. The number of sailing ships engaged in trade averages about 8937, and the number of mercantile steamers is a

increasing. Y commercial in importanc

among other flourishing ports are Shimonoseki, Tsuruga, Nagasaki. Otaru, etc.

Education.great strides. is now compule

six to fourteen years of age. There are over 27,000 elementary schools and a considerable number of high schools, army and navy schools, and departmental schools, which include the study of communications, marine industry, agriculture, and commerce. There are also legal schools and private schools of general instruc-tion; also universities at Tokyo tion; also universities at Tokyo and Kyoto. The education of the girls is nearly as well looked after as that of the boys; the girls high schools are increasing in number, and also the higher schools and certain colleges for girls, both technical and industrial. There are kindergarten schools for the little children of three years of age, but these are not compulsory or

part of the national system.

Army.—From the 12th century till the great revolution of the middle of was restricted to a hereditary military caste, the samurai or bushi, whose history, rise, and fall, is sketched in the section History below. Their transports were the head of the section was the beauty of the section of the section History below. weapons were the bow, the single-edged curved sword, and spear. The armour was of a special type which lasted unchanged till 1871. A combination of metal plates and scales sewn on leather, often highly deco-rated with

damascening. screen over

rendering him in appearance bulky and unwieldy. The samurai served as feudal retainers of the great families. Finally the great Taria and

the introduction of firearms, following on the disasters of foreign interference, brought about a remodelling of the citizen (hcimiu. commoner) army on Western lines. Furtively atta

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the and

rebellion and defeated the old samurai. The evolution of the army progressed rapidly, and the Chino-Japanese War tested the capacities of the new force, and in the Japanese expedition to Pekin in 1900. Valuable lessons were then learned and the Russian War saw 800,000 troops in the field. Improvements followed, and now by the 1909 the Imperial ordinance of 1909 the military forces consist of the Active Army, liable to serve abroad, and the National Army, both in the re-serves. There are militia forces in some of the islands. Service is compulsory from seventeen to forty, but embodiment is deferred till twenty. Two years' service (infantry), three years' (other arms) with the colours, seven and a half in first reserve, ten with the second reserve. The active army establishment is estimated at 550,000, with additions for garrisons abroad, and 150,000 special reserves; 370,000 for the second line, and some 110,000 for territorial corps. estimated that J. can place 1,500,000 men in the field, with an ultimate force of nearly 3,000,000. In the force of nearly 3,000,000. In the active, army there are 176 infantry regiments (3 battalions), 27 cavalry regiments, 30 field artillery regiments (6 batteries) with 6 siege and heavy field artillery regiments. The medical and transport service proved their admirable organisation and their admirable organisation and equipment in the Russian War. The cost of the army amounts to from £8,000,000 to £10,000,000 yearly.

Navy.-In the early days, as we know from the dread of foreign invasion and the wars with Korea and rasion and the wars with Korea and Kublai Khan, J.'s navy was insignificant. In 1635 the policy of isolation led the Tokugawa government to forbid the building of any vessel capable of crossing the ocean, and the foreign aggression of the middle 19th century showed J. defenceless before foreign sea-power. The nucleus of the navy was formed with a gift of two war vessels from the Dutch and Once Victoria and two nurchased stiff coat are used; these clothes are rebellion, and later J. began to build herself. Her first ironelad was built in tornedo-boats. The crushing defeats clothes are being worn more and more.

of the Russian navy off Port Arthur and Togo's victory in the Straits of Tsushima proved the naval power of J. in the Pacific. The latest statistics give 16 battleships, 1 building, the latter over 30,000 tons, 13 armoured cruisers, 4 of the largest type building, 19 protected cruisers, 2 building, 120 destroyers, torpedo-boats, etc., with 12 submarines and 3 building. with 12 submarance and 5 22227 The naval estimates, 1912-13, provide for £9,270,000, £3,250,000 being for new construction. The ultimate for new construction. The ultimate plans for expansion show a battle fleet of 21, capable of overcoming the most dangerous naval power in the Pacific. There are 65,000 officers and men available for active service.

Finance.-The revenue amounted to (1910-11) £67.250,000, (1911-12) £58,500,000, (1912-13) (1911 - 12) £58,750,000; expenditure £57,000,000,£58,500,000,£58,750,000. The principal sources of revenue are the land tax, graduated from 3 per cent. to 171 per cent. according to the class and value of land; the income tax, introduced 1887, varying from 2 per cent. to 8 per cent. a business tax leyied on amount of sales, and a valuable tax on alcoholic liquors. There are many other taxes. e.g. on sugar, kerosene, mining, issue of banknotes, etc., and on consumption of textile fabrics. In addition J. is a protected country and collects a The large proportion of her revenue from customs. In 1911 her imports a mounted to \$51,250,000, her exports to \$44,750,000. The unit coin of account is the yen, a fraction over 2s. in value.

Queen Victoria, and two purchased stiff coat are used; these clothes are from the Dutch. Gradually a small usually made of silk, and are often in force was organised.trained by British | beautiful colours with handsome emofficers, under Sir Archibald Douglas. broideries; the head is usually bare. The fleet played a part in the Satsuma though occasionally a large straw hat is used, socks and sandals cover the feet, and wooden clors are worn in the wet weather. The women wear a silk shirt and a kimono, kept in place England, 1878. At the opening of the the wet weather. The women wear a war with China the navy consisted of silk shirt and a kimono, kept in place 28 vessels, and 29 torpedo-boats; by a narrow helt over which is worn there were no battleships, while the the big sash or abi. The materials are Chinese possessed two powerful usually costly and beautifully emarrounced ships of the line. The naval broidered and are handed down from victories resulted in immediate build-ing on a large scale chiefly in Europe, very carefully dressed and piled with and the Russian War saw her with combs and flowers. The children are 6 battleships, 8 armoured cruisers, 44 gally dressed in the same fashion as other cruisers, and 100 destroyers and their parents. Unfortunately Western

cooked in various ways with fish, eggs, vegetables, and many kinds of pickles; very little meat is eaten, though beef is increasing in consumption. Soups made of fish, vegetables, or chestnuts, are popular, sweet cakes and sugar plums are made in large quantities and of very good quality. Chopsticks are used instead of knives and forks. Guests are served with small portions of food at a time, each person having a separate little table. The drink called saki, made from fermented rice is a very favourite beverage; large quanti-ties of tea are drunk, and the ceremonies attending tea-parties, etc., are both ancient and interesting. The tea-ceremony is believed to have been introduced into J. from China, 805 A.D., and the drinking of tea appears to have started as a more or less religious institution among the Buddhist priests; about 1330 it was adopted by the Daimyos and wealthy nobles. At their famous tea-parties each guest had to guess where the tea they drank had been produced, if they guessed right they were given one of the valuable presents which adorned the room where they were enter-tained. These gifts, often rare and beautiful, should afterwards be presented to the singing and dancing girls who entertained the tea-party. It became an exaggerated craze among the upper classes, and was carried to such an extraordinary length that even large fortunes were dissipated. One unfortunate man of the country is frequently written called Sen-no-Rikyu (1594), during in Chinese, and until the Chinese the time of the great Hideyoshi, c to codify the tea ceremonies, and came the hero of tea drinkers; he however, unable to resist rec money or favours for his skil connoisseur, and Hideyoshi h-man put to death. The tea is in many forms; in one, the leareduced to a powder and thappears as thick as soup; thinner mixture is known as The drinking of tea is even to-day always formal and ceremonious, and each action and gesture is arranged each action and gesture is arranged by a code of rules; the rooms are swept, the hands are washed, a bell is rung, while the guests walk from the house to the garden and back again, to sit before their separate little tables and drink solemnly the tiny cups of ten. The usual method of getting about the towns is in a jinrikisha, or little cart pulled by a man, who charges so much a mile. By man, who charges so much a mile. By nature the Japanese are exceedingly clean. Every one, men, women and Murasaki Shikibu Niki, written by a children, bathes frequently, some Japanese authoress, and very difficult several times a day. In the winter to read. Women have always largely

The chief food of the country is rice, the hot baths help to keep the people and this is served at all three meals, warm, especially the children who are warm, especially the children who are popped into a hot bath sometimes five or six times in one day. The natural hot springs all over the country give easy access to hot bathing. Every ordinary private house has its bath-room, and every town its public baths besides; in the capital, Tokyo, there are over 800 public baths. The geisha or singinggirls are a class well known to the European both in literature and drama. The girls are often beautiful. generally charming, and able to talk, sing, and dance, and please the people whom they entertain. They are usually apprenticed in their seventh year and can rarely reach independence unless they marry, which they generally do. From two to four yen a month are paid to the state for the girls by their proprietors. Few Japanese social gatherings would be complete without these pleasing entertainers.

Language and literature. — With the exception of the Luchu Islands, no other country claims relationship to the Japanese language. Some out Japanese language. Some authorities include it in the 'Altaio group'; it is an agglutinative tongue. Many Chinese words are employed, especially for new words, such as 'bicycle.' It is exceedingly difficult to learn and a creek don't Chinese. to learn, and a great deal of Chinese must be understood as well. are practically three languages to learn, the ordinary, the politic, and the written, which all differ in an extraordinary degree. The literature as no written litera-

book we know of is

-3 included; much of it is c. The next book, written 10 Nihongi (Chronicles of It was written entirely in Japan). and from that time most Chinese, and from that time most of the literature was published in Another book, about 760 Chinese. A.D., is called the Manyoshiu, or Collection of the Myriad Leaves, an anthology of the ancient poems. There are several histories, notably the Nihon Gwaishi, a few law books, and a great deal of poetry. The classical romances are exceedingly charming, such as the fairy story entitled Takelori Mono-galari, etc. entitled Takuori aumo galled Among the diaries is one called

Japan

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influenced literature of the country, and have added many works of merit and charm. During the time of peace under the rule of the Tokugawa Shoguns, philosophy was much studied, while popular romances and drama became common. They were, however, mainly influenced by the Chinese, and were often extravagant and horrible, but not a few were realistic and humorous. After the Restoration an enormous quantity of English and French works were translated and published, naturally influencing the literature of the time. Of the modern authors there are three who should be mentioned: Roban Koda, professor of literature at Kyoto University, Futabei Hase-gawa, and Ogai Mori, a surgeon-general and chief of the medical bureau of the army. Among the many authoresses, one named Ichiyo Higuchi borders on genius in her lifelike tales; she died very young; her stories were filled with charm, yet true to real life. There are now several newspapers and journals. Yokohama produced the first daily paper, 1871, also the first English journal, The Janan Mail 1865 Among the Mail, 1865. Japan Among principal papers are, Chugai Shogo Shimpo, and the Japan Times, etc. There are also a great many excellent

Press Associag body of enmen. many ability. The drama has not progressed as rapidly

as its sister arts, however great hopes are entertained for its development. For years the chief plays have been

music is at present in its infancy, and to the cars of Europeans seems neither pleasant nor melodious.

Art. - The architecture of country has never attained the great or grand, small things are made perfect in J., but not always very things, Quaint grace and large wonderful curves may be met, but no wonderfully proportioned and impressive building greets the stranger, no domes or minarets, or massive structures, but lightly built houses and temples of wood and thatch, or sometimes tiled roofs. Walls are the sides and divisions of houses being of opaque paper screens, replaced in winter by wooden doors that slide into their places. Even the great temples are composed of wood and matting, the wood-carving being wonderful and beautiful. The view of a town from a height appears extra-ordinarily flat and uniform, only an

the ful head among the trees. The Japanese architect excels in beautiful detail. but the grand proportions and sometimes overwhelming beauty of the great Western structures have never yet appealed to him.

> be all that one picture contains, but zht the or

rank grass or a clump of bamboo will be completely beautiful. The first attempt at painting may have been inspired by Chinese art, but certainly the art has existed in J. for twelve centuries. Till recently the European was accustomed to regard the whole art of J. as purely decorative; we are so familiar with the screens fame chiral etc., with the

curious design and sculptures have only compara-tively recently been brought to the Western man's notice. The Japanese themselves knew little of their own historic masterpieces which hidden in the Buddhist temples, or in when private hands. Since 1897. national treasures became protected, and reproductions were published, the real art of the nation has become The nude has never better known. appealed to the Japanese as the most perfect creation, the draped figure always appearing far more beautiful. The growth of painting should

into six periods: (1) From the the 9th century, mainly in-by the Chinese; (2) from the

5th century, when schools of painting were established and the Chinese influence began to fade; (3) from the 15th to 17th century, when the revival of Chinese art took place; (4) from the 17th to the 18th century, when a more popular school became established; (5) from the 18th to the 19th century, when European art influenced the schools; (6) when the present progressive schools began. The oldest painting of whose existence we know, is a mural decoration in the hall of the temple of Horyu-ji, near Nara, attributed to a Korean priest named Doncho about the 6th century. It clearly shows the colouring and construction of a late example of Buddhist art. The first native artist whom we know as famous, was a noble named Kosé-no-Kanaoka, at the court of the Emperor Seiwa, about 850 A.D. very few of his works have lived for a town from a height appears extra-ordinarily flat and uniform, only an occasional pagoda rearing its beauti-most perfect in their blending of

colours. the native school of Wa-gwa-ryu; the and insects, such as grasshoppers, frogs, have a such as grasshoppers, which ordinar, charm and vitanty. During the 12th century a priest named Toba Sojo distinguished himself by adopt-ing the school of Wa-gwa-ryu, in-

arsening wit and ol of his ollowers

worthy of note carried on his humorous teaching. During the 15th century Nara. two Buddhist priests became very famous, Cho Denshu, and Josetsu. The former painted religious subjects, and the latter '-

A little late:

is still followed to-day, with its generous breadth of idea, its extreme simplicity, and its brilliant colour-schemes. A new development of art with Hishigawa Moronobu (d. 1713); his pictures are filled with delicate work; he gave J. her first beautiful wood-engravings and illustrated books with realistic and de-lightful pictures. About 1775 an lightful pictures. artist, Okyo, became famous, who represented animal life with extraordinary perfection. He instructed many famous pupils, and his followers still continue. Following the Kano school came Ogata Korin (d. 1716), a man who left his eccentric and vivid influence on the works of his many pupils; he also excelled in lacquer work. Hokusai Nakajima Tet-Hokusai Nakajima work. Suiro (d. 1849) is another well-known name; his thirty-six views of Mount Fuji are of remarkable beauty. He illustrated numberless books, and represented both animal and vegetable life with accuracy and vividness. He was followed by a flood of artists, many of whom rose to fame. After the arrival of Commodore Perry, art languished—there were more urgent things to do. The year 1889 saw the last of the old schools; Kyosai, whose favourite themes were ghosts and skeletons, ended the ancient traditions. Later came a revival, and today I owns many famous men. In

His descendants who con- and a fuller knowledge and appreciatinued to the close of the 15th cention of Japanese art at its best will tury were famous artists, and founded certainly result. Sculptures and carving in metal and wood has been a followers of this particular branch of highly developed art in J. for twelve painting delighted in quaint animals centuries; many of the temples are store-houses of fine examples, going back as far as the 6th century. Sacred images were not the only subjects for the glyptic art, bells, vases, candlesticks, lanterns, arms, and armour, all were objects for the artist's skill. Stone was never used to any extent, but bronze, ivory, and wood have always been employed from the earliest times. The most perfect bronze is the image ancient of Bhaicha-djyaguru, in the temple at Nara possessed a school of sculpture in wood as early as the 11th century. One of the most famous of the country's sculptors was Hidari Jingoro (d. 1634). He left a large school behind him; some of his chief probably a Works were the gateria; or the Yamato-ryu school, and believed to at Kyoto and the decorations to the be the pupil of Jositsu, who also inmuscleum of Iyeyasu at Nikko. The characted Shubun and Sesshu. These elaborate metalwork of the sword structed Shuban and Sessiu. These endorate measurem of the samurate three became the leaders of three hilt, when every noble and samurate famous schools of painting. The Kano carried a sword, were for over 400 school has outlived the other two, it rears wonderful works of art. Some of these hilts with their guards are objects of rare beauty; the work was both skilful in design and in choice of metals. The sword being practically the most precious possession of the samurai, its decoration and design became a matter of serious artistic thought. Whole families became sword sculptors, and many of these were held in great esteem, while the swords themselves were handed down as family heirlooms. The art of inlaying with gold and silver became highly developed at a very early time, and very beautiful effects have been accomplished. A great deal of their bronze work is very fine, one parti-cular kind which colours to a golden yellow is exceptionally remarkable, and the Japanese have excelled in this particular branch of metalwork; they mastered the art of casting they mastered the date, and have bronze at an early date, and have steadily progressed to make perfect what they knew. The common domestic flower vases, alcove ornaments and incense burners are often of exceeding beauty of design and workmanship. The great Bronze workmanship. The great Bronze Buddha at Nara, and the huge Amida at Kama-Kura, are a proof of their early skill in casting large subjects. Another branch of art grew quickly with the use of tobacco, and this was tions. Later came a revival, and today J. owns many famous men. In
1913 the anonymous purchaser of
Mr. Arthur Morrison's magnificent
collection of Japanese paintings presented them to the British Museum,

outfit, just as the guard and the hilt of which part they came from is not the sword had been the chief posses proved. The Ainu came from Siberia, the sword had been the chief possession of the samurai. The little netsuke are made of wood or ivory, and are often very quaint and charming, and always of beautiful workmanship. Closely on the heels of the netsuke Closely on the heels of the netsuke came the okimono, little ornaments, wonderful copies of crayfish, dragons, eagles, birds, and the like; some were of large size, but many of the most perfect are tiny little productions to delight either an artist or a child. Wood-carving has, from very ancient days, been one of J.'s greatest arts. The temples bear the records of centuries of exquisite work, but seldom the name of the artists. The smaller wooden figures of the Buddha familiar to the European, gilded, and carved with such placed faces, in folded drapery, with lotus petals carved for their canopy, are graceful examples of the work of the Japanese wood-carver. The art of lacquering was a gift from China at the beginning of the 6th century. Plain black lacquer was the first achievement, later mother-ofpearl and gold dust decorated the work, followed by conventional by patterns, and still later by floral designs of great beauty. The interior of the temples and castles were adorned with the most elaborate lacquer work. In all the finer examples of this art gold predominates, and the effect is rich and soft. Enamelling is another development of the modern Japanese artist. To-day vases, bowls, censers, etc., can be obtained in the finest Cloisonne enamel work. The translucent enamels are wonderfully decorative, both in delicate design and exquisite colouring. Japanese art Japanese art must always appear different from the art of other countries; in one sense it is impressionist by reason of its choice of subjects and want of detailed background, yet in another sense the perfect painting of every petal, feather, or feature, makes their productions anything but impressionist. The whole art, just as their real national character, stands out to perfect themselves in the one main object and to disregard all superfluities.

History.-The racial origin of the Japanese people is still a matter of Japanese people is some matter of dispute. The anotent chronicles of the country will tell you that the god Ninigi descended on an eastern peak of the mountain Kirishimayama, on the island Kyusha, as the forerunner of their first emperor named Jimmu, about 660 B.C. Before this date they have no written history. The Ainu, or Ainos, appear to have been the inhabitants of J. when the present people migrated from the adjacent continent, though

and they appear to have found a primitive aboriginal tribe who dwelt in pits and who had been (if they were not then) cannibals. The Ainu drove these people N. and established themselves on the main part of the islands. They worship the bear and have curious customs and ceremonies attached to the veneration of the bear family-one among others being a great festival held in the autumn, the main feature of this is the slaughter of a bear that has been brought up in the village and kept in a cage; the animal is made savage by want of food before the festival, and at a given signal is liberated and despatched by hunters; the carcass is then cut up and a great feast is held; the reason or origin of this custom is The hair of the Ainus is unknown. very abundant, often growing thickly on the bodies as well as the head and chin; they were formerly a fierce race, but centuries of oppression have reduced them to a quiet and submissive people. The Japanese generally despise them and refer to them as earth-spiders and barbarians. They are certainly a dirty, drunken, and lazy race, with no desire to progress. There are not many left now. Of the coming of the Japanese and the first fierce fights for supremacy very little can be written. The real known history begins with the Emperor Jimmu Jenno; the date ascribed to his accession is 660 B.C.. but it was probably later; from him all the emperors of J. are descended. In 200 A.D. a warrior empress called Jingo invaded Korea, crossing from J. with a large fleet and successfully subduing a part of Korea. About 500 A.D. the inhabitants became properly one nation, a mixture of Ainu, Mongol, and Malay, ruled by one emperor. Down to 670 the records are so vague and wrapped with legends that it is impossible to say accurately what occurred. About 670 the noble family of Fujiwara becomes prominent. They governed as agents of the emperor, spending revenues and oppressing the people. It became customary for the empress to be chosen from their daughters; thus the early training of the royal children became part of the privileges of this powerful house which, in fact, though not in name, ruled the empire. They gave J. many scholars and statesmen, but being without soldiers or money, except for the imperial revenues, they were without soldiers of most the imperial revenues, the gradually ousted by the warrior families of Taira and Minamoto. These two families were at constant war with each other. The Taira were

finally exterminated by the Mina- Tokugawa Iyeyasu. These two men moto, about 1100 A.D. For some of the Minamoto ruled the empire under the title of Sci-tai Shogun. He proved himself a strong and able His establishment military feudalism, though placing the civilian in a subordinate position, procured a short period of peace for the country. The emperor was merely a sacred personnel during merely a sacred power. Yoritomo died in 1198, and the family of Hojo, who acted to the Shoguns in the same capacity that the Fujiwara had acted to the imperial family, became the most powerful. The Emperor of China, Kublai Khan, demanded that J. should recognise his suzerainty (1280); on their refusal a large fleet was sent which was destroyed off the was sent which was destroyed off the free. feebl

The of the head of the Hojo house) had thirty-seven mistresses and 2000 dancers. The people grew restless under this extravagance, and an organised revolt succeeded in driving out the family and restoring power to the Emperor Go-Daigo, 1334. Unfortunately, the emperor was an incompetent person, and being ob-liged to abdicate he fled to the S., chased by the soldiers of Ashikaga Takauji. Much trouble and petty

warfare ensued of the imperi sovereign; the the Shogunate was in a wretch

poverished by the internal struggles. When the Emperor Go-Isuchi died there was no money to bury him, and it was forty days before enough could be collected. The great fortified monasteries of the Buddhist monks were a source of terrible misery to their surrounding neighbours, whom they plundered at will. The depth of the country's wretchedness can be realised when we know that China allowed the title of king, not emperor of J., to continue upon an annual payment of a thousand ounces of gold. From 1565-1600 only the strongest warriors could hold any real power, and thus it came about that a low-born groom became the first man in the empire. This man, named Hideyoshi, was noted for his ugliness, his quick wit, and his other man, a common soldier, powerful at the same time,

years after this Yoritomo the chief them overcame the remaining great of the Minamoto ruled the empire warrior families. On the death of Hideyeshi, Iyeyasu fought for the supremacy and finally gained it in the great battle of Sekigahara. Afterwards he claimed the title of Shorun. and thus founded the line of Toku-gawa Shoguns, who ruled till 1868. Kyoto had formerly been the capital but Iyeyasu substituted Yedo. The military families (known as Samurai) were now subject to the closest inspection; their estates and incomes were assessed by the Shogun's officials. The Daimyo or foudal chief generally held a castle occupying a commanding position. At this period the right of wearing a sword was the highest privilege, wealth was of little consideration, honour, courage, loyalty, and filial piety ranking first in the code of ethics followed by the Samurai. They were a strong, hard, unforgiving, yet brave and courteous race of men. The relations of the Daimyo to the Samurai corresponded to those of the mediceval European baron, knight, and squire. Lyeyasu Tokugawa established a military rule of the empire, and under its strength and protection J. found peace for two and a half centuries. He stands among the greatest of J.'s statesmen, and his system of govern-ment assisted enormously to increase the wealth of the country. One of the regulations he enforced was that the Daimyos should reside at Yedo at stated intervals, leaving their families as hostages during their absence. Under the early rule of the Tokugawa Shoguns foreigners were welcomed and regular intercourse between Japanese and Eu began in the 16th century. Europeans mercial interest had commenced with Portugal about 1542. A Portugueso vessel was blown from her course and by accident landed on an island S. of Satsuma. They sold the Japanese some arquebuses and re-ceiving orders for more, seven ex-peditions were successfully carried out during the next few years. The Church of Rome now conceived the idea that J. would be a great field for missionary operations, and accord-ingly Jesuits were entrusted with the work. Francis Xavier sailed for J., and being well received be commenced preaching his doctrine. The Japanese, always tolerant and broad-minded, courage. He is one of the national them trade and wealth from other heroes of J., and artist and author countries. The Jesuits made good have given him undring fam made no objection to the introduction · denounced as

and quarter with the seaths, and following this the Dutch commenced trading with J.; they, being rigid Protestants, were naturally unfriendly with both Spanish and Portuguese, thus the peaceable, lighthearted natives were amazed at the edifying spectacle of all the Europeans quarrelling violently among themselves. The Japanese became alarmed, the creeds of these foreigners appeared to them merciless and and they feared fanatical, kings equally unpleasant follow up these persons and invade their country, therefore the simplest method of curing this condition was The Spaniards were exapplied. pelled in 1624, the Portuguese in 1638, and the native converts who refused to give up this foreign creed were exterminated. The final tragedy of these poor souls took place at the castle of Hara, known as the revolt of the Shima-bara. The Dutch traders were not expelled, but were subjected to severe and humiliating restrictions. No general dealings with foreigners were allowed. Oceangoing ships were no longer permitted to be built. The country having rid herself successfully of these turbulent foreigners and being wearied with her internal troubles, now set about finding rest and recuperating herself. The policy of the Tokugawa Shoguns was entirely peaceable, very simple, and quite effective. The first Englishman to reach J. was one William Adams (d. 1620). He was pilot on a Dutch trading vessel, and stress of weather drove the ship Charity to the island of Kiushiu. He was summoned to Osaka, and Iyeyasu Tokugawa, appreciating his knowledge of ship-building and ships, refused to allow him to return home. He was presented with an estate at Hemi near Yokosuka, married a Japanese wife, and became known and beloved as Anjin Sama. His memory is preserved by the name of a street in Yedo and an annual festival on Yedo and an annual results on June 15. The country now thoroughly Satsuma; terrible vengeance was revelled in its peace and increasing prosperity, and the Tokugawa Shoguns, following up the policy of Iveryasu, succeeded each other undisturbed. During this time, however, J. was still able to profit by intercourse with the Dutch and Chieses while peace gave more time riven him an edict, without the knowintercourse with the Dutch and Chinese, while peace gave more time given him an edict without the knowfor education, which bred the desire ledge of the Shogun. A squadron of for progress. Slowly but inevitably the more intellectual classes began to regard the absolute power of the Shoguns as tyrannical. In 1853 the United States sent Commodor capital being in the hands of the inverse with four ships of war to open diplomatic relations, a Russian ship the Shogun, who therefore could not

agitators. Some Franciscans arrived jarrived in the same year on the same and quarrelled with the Jesuits, and errand. J. now woke up to the folly following this the Dutch commenced of having isolated herself from the or having isolated refer to the first roll the progress of other countries. Commodore Perry made his proposals and sailed away, purposing to return in a few months. J. wildly flung all her energies into feverish attempts to build forts, collect troops, and build ocean going ships once more. besought the Dutch traders to aid them with scientific works and explanations of modern warfare. result was that they suddenly and fully realised their absolute inefficiency, and with truly national sense decided to agree with Commodore Perry's demands of American trade and safety for shipwrecked sailors. Perry showed them a model telegraph and a model railway, which delighted and amazed the Japanese. Here you have the astounding fact of a nation wondering at a model railway in 1853, while by 1905 they had defeated a great European power with its own modern weapons. Can any other nation boast of so quick, wonderful, and complete an adapta-tion of modern methods? The coming of Perry and the subsequent awakening of the country led to the downfall of the Shogunate. The Daimyos were called together to advise, but they adopted the hopeless attitude of resisting the foreigners by force. The Shogun understood the position only too clearly; he was a far-sighted able statesman; his decision was to sign the treaty with Perry and further treaties with Russia, Engfurther treaties with Russia, land, and the Netherlands. E Europe having barely recovered from her own troubles of 1848, forced no undue pressure upon J. In signing those treaties the Shogun knew that he signed his own downfall. The Daimyos rose against him, expel the him, foreigner' became the popular cry. The Daimyo of Hikone, who supported the Shogun, was murdered by the Daimyo of Mito. A British subject named Richardson was murdered by the retainers of the Daimyo of

debt should be remitted on the ratification of the treaties. This ended the power of the Shogun. A foreign fleet was anchored off the entrance to the sacred city of Kyoto, where the emperor resided. That monarch dismissed the officials the Shogun had appointed to carry out the negotiations, the Shogun resigned in 1865. and was succeeded by Keiki, the last of the Tokugawa rulers. From this time on J. began to take her right place among progressive nations. The emperor became the head in fact and not in theory. In 1871 an imperial decree abolished local autonomy. The founds system was to be a thing of the past. In 1876 the pensions of the Samurai were commuted and swords were forbidden to be worn. In submitting to this without a murmur, and sinking all personal interest before the wellfare of the nation, they showed a heroic lovalty. The Satsuma clan alone remained conservative and rose against the government. They intended restore the Samurai and secure the governing power for Satsuma. They were 30,000 strong and well equipped. The struggle began in January 1877 and ended in September; it was bitter and terrible, over 35,000 men were killed or disabled at the finish. The Samurai were defeated and the country realised its own strength in the government forces who were mainly of the civilian, non-military · class. This ended further trouble with the Samurai; many of these men, loyal to their creed of honour, retired to the mountains and died by their own hands, suicide under the name of *Harakiri* being an honourable death. This custom had always been followed by the Samurai cases of hopeless trouble or from the wish to follow a dead superior; the nobles wives of the feudal Samurai also occasionally despatched themselves when honour or loyalty the

has always ranked high in the esteem The country now of the Japanese. difficult task set herself the of thoroughly learning and practising the institutions of Europe and

e to

collect the debt. Sir Harry Parkes, constitution for Japan, a man full of entrusted with the British interests energy, courage, and state-craft, who in Japan, arranged that part of the served his country splendidly and constitution for Japan, a man init of energy, courage, and state-craft, who served his country splendidly and died by the hand of a mad assassin in Korea, Saigo Takamori, Itagaki, Okubo Kido, and others. The next period is known as the Meiji era. Englishmen were employed in the construction of relivave telegraphs. construction of railways, telegraphs, etc., and the organisation of the navy; Americans arranged her system of postal service, also her agricultural her education; arrangements and Frenchmen trained her soldiers in modern tactics and recast the laws. while Germans assisted with medical science and local government. new system of education began at once, and it grew and prospered in an astonishing manner. In 1889 the Emperor Mutsuhito gave The next diffipresent constitution. culty the country had to face was the question of Korea; that peninsula was too close to the vital part of J. to be a comfortable home for another nation. China was not anxious to see Korea occupied by the Japanese any more than the latter were to see it governed by China. Matters reached a crisis in July 1894, and war was declared between the two countries. The struggle became a succession of victories for J. First, a naval en-counter took place between three Chinese battleships and three Japanese cruisers. One Chinese ship was taken, one shattered and rendered uscless, and the third escaped badly damaged. The first land victory took place at Phyong-yang, the Chinese lost 6000 men and the Japanese only 700. Then came the naval battle off the mouth of the Yalu R., which proved a disastrous defeat for China: J. then seized the Chinese naval ports of Talien, Port Arthur, and Vei-hai-wei, the latter offered serious resistance, and great courage was shown by both sides. The Chinese Ting, comcommander, Admiral mitted suicide, unable to bear the fancied disgrace of defeat. This was the end of the war. The treaty of Shimonoseki (1895) declared Korga absolutely independent, ceded to J. part of Manchuria, Formosa, and the Pescadores, compelling China to pay 200,000,000 taels indemnity. J.'s victory was hard won, it cost 20,000 lives and £20,000,000. The inter-terence of the European Powers and the institutions of Europe and her own crippled condition commenced. Some fifty-five men, by no means all noble, commenced the work of reconstruction. Many were with Port Arthur. J. retired quietly murdered, some were executed, and not a few broke down with overfor a grimmer and more terrible work. Among the greatest names structle that she knew new to be work. Among the greatest names struggle that she knew now to be honoured ever more by their country inevitable. In 1902 a defensive are Prince Ito, who framed the first alliance was concluded with Great

Britain. of Russia in Korea and the conor Russia in Rorea and the con-cessions granted to that country by China were watched by J. with in-creasing anxiety. In 1904 matters came to the expected crisis, and J. declared war against Russia (see RUSSO-JAPANESE WAR). To the amazement of Europe, Russia was defeated, peace was concluded in 1905, and a treaty was signed at Portsmouth, New Hampshire, U.S.A. In 1905 the new Anglo-Japanese treaty was signed in London for the purpose of maintaining peace in Eastern Asia, ensuring the integrity and independence of China with the policy of the 'open door' for all nations, and for the mutual defence of the territorial rights of the two contracting Powers in the Far East and India. In 1911 this was renewed for ten years with modifications and a new clause in reference to arbitration treaties with any third Power. The integrity of China was the basis of agreements with Russia and France (1907), and a common policy in regard to Far Eastern and Pacific questions was formulated in identical notes between J. and the U.S.A. in 1908. In 1910, 1911, and 1912 agreements were signed with Russia in reference to China, Manchuria, and Mongolia. The great Emperor Mut-suhito died in 1912; he had reigned for forty-five years. On his accession he had inherited a petty Oriental state, at his death he left his son an empire which had taken her place among the family of the great Western nations. A pathetic incident of the Japanese characteristic loyalty and devotion marked the day of the emperor's funeral; General Nogi and his wife committed 'honourable suicide' according to the old established custom. The emperor's third son. Yoshihito Harunomiya, succeeded him, and continues his father's wise, progressive rule. In 1912 a conspiracyagainst the Japanese governorgeneral of Korea, Count Terachi, was discovered and a number of arrests were made, many of the prisoners being Christian converts. Gross irregularity and tortures were alleged by the missionaries, and the legality of the trial and sentences has been gravely questioned. In adopting Western parliamentary government, J. combined also the older autocratic system, and the constitutional position has been the cause of much political agitation and party conflict. The most active and numerically strongest party is the Seiyu-Kai, or Constitutional Political Association; at the election of 1912 they numbered 217. The next strongest

The gradual encroachment gressive party, which combined with the *Boshiu*, or commercial and business party, in 1910. The great question at issue is the solution of the constitutional problem of the relation of the cabinet, dependent on the will of the emperor to the diet with its fairly evenly balanced parties, who with political aptitude have hardly as yet shown their power to produce capable administrators. It was the Elder Statesmen' of the old régime that brought J. to her position, and the question will be to supply their place. It is not surprising that par-liamentary crises and resignations namentary crises and resignations of prime ministers have been frequent. See Captain F. Binkley, Japan (12 vols.), 1905, and his exhaustive article in Ency. Brit. (11th ed.); R. P. Porter, The Full Recognition of Japan, 1911; Count Okuma, Fifty Years of New Japan (ed. by M. B. Huish) 1909; for social engineering of the second property of the Huish), 1909; for social customs, etc., B. H. Chamberlain, Things Japanese (4th ed.), 1902, etc.; Lafcadio Hearn's works, especially Japan, an Interpretation.

Japanning, the art of varnishing in colours the surfaces of metal, wood. etc., the varnish being dried and hardened on in stoves or hot chambers. The process is so called from an imitation of the celebrated lacquering of Japan, which, however, is far more brilliant and beautiful, as well as durable, than ordinary japan work. The most common style of the work The most common style of the work is black japan, which consists of asphaltum mixed with gum, turpentine, and linseed oil, several coats of the mixture being applied and allowed to dry separately, afterwards being rubbed down with powdered pumice-stone and then polished. After thick coatings a brilliant black is shown. Japanned works are usually of iron and tin, such as deed-boxes, trays, canisters, clock-dials, etc.

Japan, Sea of, divides the islands of Japan from Korea and Eastern Siberia. It is almost tideless and ex-

siberia. It is almost tideless and extends about 600 m. from E. to W. and 500 m. from N. to S. with an average depth of 1200 fathoms.

Japheth, one of the sons of Noah, the youngest according to Gen. v. 32, but the second according to Gen. ix. 24. He is the father of one of the three great divisions of the nations of the world (see ETHNOLOGY). Among his sons was Javan, the ancestor of the Ionians. The name Japhetic has been applied loosely to peoples of European stock who are now classed as Aryan and Indo-Germanic.

Japp, Alexander Hay (1839-1905), a Scottish author and editor, known under the pseudonym H. A. Page. born at Dun in Forfarshire. He edited is the Kokunciu To, or Popular Pro- the Sunday Magazine, and sub-edited

the Contemporary Review. His works most of his life. There are also the include: Lives of Thoreau (1878), De remains of the church of St. Paul. Quincey(1877) and World Market and Company of the church of St. Paul. Memorials

Hours in my G of the Year, . 1894; Adam

from the Rabous and other Doctors, 1899; Some Heresies dealt with, 1899; Her Part, 1900; and Darwin as Ethical Thinker, 1901. Jardine, Sir William (1800-74), a

Scottish naturalist and author, born the Canadian North-West Mounted in Edinburgh. He contributed the Police in 1880; selected in 1896 to sections on birds and fishes to the Naturalist's Library (40 vols.), 1843, and was joint editor of the Edinburgh Philosophical Journal. His publications include: Illustrations of Ornithology, 1830; The Ichnology of Annandale, 1853; Birds of Great Britain and Ireland (posthumously), 1876.

Jargoon, the name applied to certain varieties of zircon, which can be cut as gems, but are not of the reddish colour of the jacinth. Some Some Js. are colourless, and others are tinged with green, yellow, or red, the lustre being very near to that of a

Jarnac, a tn. in Western France, dept. Charente, on the r. b. of the R. Charente, 7 m. S.E. of Cognac. Brandy, wine, and wine casks are manufactured. Louis, Prince do Louis, Prince de Condé, was killed here in the victory of the Duke of Anjou over the Huguenots (March 13, 1569). Pop. 4493.

Jaro, a tn. of the prov. of Iloilo, Philippine Islands, 4 m. N.W. of the cap. Iloilo. It has a large trade in sugar and agricultural produce. Until 1908 it was part of the town of

Iloilo, Pop. 10,680.

Jaromer, or Jaromierz, a tn. in Bohomia, on the R. Elbe, 68 m. E.N.E. of Prague. There are manufs. of

sugar and jute. Pop. 8213.

Jaroslau, a tn. in Galicia, Austria, on the R. San, 60 m. N.W. of Lemberg.

Jarrah, or Eucalyptus marginata, also known as the mahogany gumtree. It is a species of Myrtacene indigenous to S.W. Australia, and is much valued on account of its wood, which is used in building and furniture-making.

E. of Newcastle. This town possesses | Pop. 132,000. some interesting old ruins, among them being those of the monastery, founded by Biscop in the 7th century, and where the Venerable Bede spent are only five known species, and of

There are also the The tom

chiefly having

Palmer and Company's shipbuilding works and iron foundries. There are also paper mills and chemical works in J., and coal mines in the vicinity. Pop. (1911) 33,732.

Jarvis, Major Arthur Murray (b. 1863), a Canadian general, joined report on the unorganised territories in the Athabasca and Peace R. dis-He established the tricts. national boundary-line on the Dalton trail in the Yukon, and built a fort near Chilkat Pass. For services in S. Africa (Cape Colony, Transvani Basutoland, and elsewhere) he was made major in the British service in 1900. He was at Sables Drift in advance of Buller's army. Since 1902 he has been magistrate and commander of outposts of the Canadian North-West Mounted Police on Yukon R.

diamond.

Jarkent, a tn. of Russian Central
Asia. prov. of Semiryechensk, near important of the lost works of the R. IIi, 70 m. W.N.W. of Kulja.

Jews. It is twice quoted in the Pop. 16,372. is noteworthy that each quotation is poetical in form. In Joshua x. 13, the passage telling how Joshua commanded the sun to stand still over Gibeon and the moon over Ajalon is quoted from the B. of J. So also is David's lament over Saul and Jonathan in 2 Sam. i. 18. From these it is deduced that the book in question

was a collectiothan religious ploits of Israe

Talmudic authorities have attempted to identify it with one or other of the early canonical books, but with no effect. It is a separate production of the post-Solomonic period, probably containing, however, many poems of earlier date which also occur in Exodus, Judges, Samuel, etc. During Has manufs, of confectionery, cloth, the later middle ages three Jewish pottery, and brandy. Pop. 24,974, works appeared, claiming to be the works appeared, claiming to be the lost B. of J., and in 1751 there appeared an astounding forgery purporting to be a translation of it into English by Alcuin.

Jashpur, a trib. state of the Central Provinces, India. In the bed of the R. Ib, the most important river of the Jarrow, a scaport, and municipal state, are found diamonds and gold. bor, in the co. of Durham, England. The state also produces iron, silk, lac, It is situated on the Tyne about 6 m. and becswax. The area is 1963 sq. m.

Jasione, a genus of Campanulacere,

the sheep's-bit.

(1798 - 1864), Jasmin, Jacques known as the 'Barber Poet of Agen, a Provencal whose real name was Jacques Boé. His first volume of poems, called Papillotos (Curl Papers), was published in 1825, containing some verses in French, but mostly in the Provencal 'patois.' These 'patois' poems are generally in the form of short epic narratives, both grave and gay, dealing with familiar scenes of the peasant-life in which he took part, and marked by spontaneity and simple grace of diction. J. is now generally considered the direct forerunner of Mistral, and the Félibrige. Four successive volumes of the Papillotos were published during his life-time and contained the famous poems 'Charivari'; 'My Recollections'; 'Martha the Simple'; 'The Twin Brothers'; 'The Blind Girl of Castel-Cuillé' (translated into English the Castel-Cuillé') lish by Longfellow, and set to music by Coleridge Taylor, 1901); and 'Françonetto' (translated into Eng-lish by J. D. Craig in his Poets and Poetry of the South of France, 1866). See Rabain's Jasmin, sa Vie et ses Queres, 1867; De Montrond's Jas-min, Poëte (2nd ed.), 1876; Andrieu's Jasmin et son Œurre, 1881; Sainte-Benve's Portraits Contemporains; Benve's Cardaillac's Propos Gascons : Jasmin, 1898; and Marieton's Jacques Jasmin,

Jessamine, Jasmine, OL applied to the various species of Jasminum, a genus of Oleacere. There are between one and two hundred of these shrubs, most of which bear sweet-scented flowers followed by a fruit which is vertically divided in J. officinale, the common J., grows in Europe and Asia. Besides the true J. there are many very different plants to which the name is given. Thus, Gardenia florida, a species

Cape J

species Plumeria rubra, a species of cynacem, is the jasmine-tree; Apocynaceæ, Calotropis procera, an asclepiadaceous

plant, is the French J.

Jason: 1. In Greek mythology, the leader of the Argonauts, was a son of Eson, King of Ioleus. His half-was evidently applied to forms of was evidently applied to forms of was evidently applied to forms of was evidently applied to forms of the control of Siberia brother. Pelias, drove him fro

When J, came to claim his kingdom, he entered the market-place with one sandal, and Pelias, recognising the omen, sent him in search of the golden fleece. J., by the help of Medea, secured the fleece and returned with her in the Argo. Medea, pretending to re-

these the commonest is J. montana, store youth to Pelias, persuaded his daughters to dismember him and

> J. forsook Medea for Glauce, and Medea in revenge slew the new bride and her own children by J. 2. A tyrant of Phere (fl. 390 B.c.). He extended his power over the whole of Thessaly, and would probably have become supreme in Greece had he not been assassinated in the height of his power (370 B.C.).

Jason, a name of Greek origin in common use among the Jews. There are several 'Jasons' mentioned in the Apocrypha, and one in the N.T.: 1. Of Cyrene, a Hellenistic Jew who probably lived in the second half of the 2nd century B.C., and was the author of a history of the times of the Maccabees down to the victory over Nicanor (175-161). 2. The second son of Simon II. By means of a bribe of 440 talents of silver to Antiochus Epiphanes he managed to usurp the high priesthood of his brother, Onias III. (Antioch II.). Another bribe enabled him to set up a gymnasium in Jerusalem, to enrol the inhabitants of Jerusalem as 'citizens of Antioch, and to send a contribution to Tyre for the festival of Hercules. He was supplanted by his kinsman, Menelaus. in 172 B.C., and, after a short resumption of power in 170 B.C., fled and died in exile (see 2 Macc. iv., v.). 3. The son of Eleazer, sent by Judas to Rome (1 Macc. viii. 17). He is probably the Jason who is mentioned as the father of Antipater (1 Macc. xii. 16). Thessalonica, was the host of St. Paul in that city (Acts xvii. 1), and, according to tradition, Bishop of Tarsus.

He may be identical with the J. of Romans xvi. 21, Paul's 'kinsman.' Jaspe silica, conis retained lated to and is found in veins and cavities in igneous rocks from which it is derived by decomposition. Through the

brown,

· of anrilliant

of Siberia een stripes.

s in brown

nodules in the Mile valley and Libyan A rather rare form of the desert. mineral is termed porcelain J., and it is distir multipl

dently in situ.

Jassy, Jashi, or Iasi, the cap, of the

dept. of J., Roumania. 5 m. W. of the R. Pruth and the Russian frontier. It was nearly destroyed by fire valuable oil. J. podagrica is a curious species with a thick swollen stem, and modern plan. It is the seat of the Greek Orthodox metropolitan of Moldrich and of Charles and the Char davia and of a Roman Catholic archbishop, and has a university (founded 1864). J. has a large trade in petroleum, salt, metals, timber, cereals, fruit, wine, and cattle. Here was concluded the peace between Turkey and cluded the peace between Turkey and Russia in 1792. A Greek insurrection under Ypsilanti in 1821 led to the storming of the city by the Turks in 1822. From 1564-1859 it was the capi-tal of Moldavia. Pop. 80,000. Jastrow, a tn. in W. Prussia, 52 m. W.N.W. of Bromberg. The chief in-dustries are spinning and weaving. Pop. 5512

Pop. 5512

Jasus, the name of a genus of malacostracan crustaceans belonging to the family Scyllaride, sub-family Palinurine, and common to the S. hemisphere. They are found on rocky bottoms, and are characterised by a and antenne.

Jasz, Hungary,

The chief industries are agriculture and horse-

breeding. Pop. 11,000.

Jaszbereny, a tn., co. Jasz, Hungary, 40 m. E. of Budapest. It has manufs. of wine and cloth, and a flourishing trade in corn, cattle, and horses. Pop. 26,500.

Jasz-Nagykun-Szolnok, a co. in Hungary, watered by the Tisza (Theiss). The chief town is Szolnok, Area 2074 sq. m. Pop. (county)

are widely disseminated India, and occur in vari in the folklores of nearly

countries. See The Jalana, with its known Commentary (7 vols., London), 1877- second as 97; Buddhist Birth Stories, ed. first the Fausböll; and Davids' and Cowell's the second translations.

Jath, India, a native state in the Decean div. of Bombay. With the small state of Daphlapur, it forms the Bijapur agency, covering an area of 980 sq. m. The principal industries are agriculture and cattle-rearing. The town of Jath has Pop. 68,000.

a pop. of 5100. Jativa (ancient Sælabis), a city, prov. of Valencia, Spain. In Roman times it was famous for its linen. It by severe ment is picturesquely situated on the R. and fright, by a Albaida. Its chief products are fruit, poisons, and trice, oil, and wine. Pop. 13,000.

The pyremia is typhus typhus typhus products and trice, oil, and wine. Pop. 13,000.

form a considerable portion of the population of the Punjab, Rajputana, and the adjacent districts of the United Provinces. Hindu legends seem to point to a pre-historic occupation of the Indus valley by this people. The J. are mainly agriculturists and cattle breeders. They are very dark in colour, but have regular features. In religion they mostly follow the Sikh or Mohammedan faith.

Jauer, a tn. of Prussian Silesia, 38 m. W. of Breslau. It produces sausages, grain, manufs. machinery, carpets, leather, woollens, and to-bacco. There are interesting old

churches and a palace of the former princes of J. Pop. 13.556.

Jauja, or Atanjauja, a tn. on the river of the same name, in the dept. of Junin, Peru, 115 m. N.E. of Lima. Silver mines occur in the prov. Pop. about 3100.

id com. in the Mexico, about Victoria. Pop.

10,000.

Jaundice, a symptom of disorders of the system, rather than a disease, and is caused by the presence of the e in the blood.

he conjunctiva yellow.

urine becomes very dark, varying from saffron to porter in colour, and 349,403.

Jataka, the name used to designate grey huc. Sometimes in addition to the legends which recount the 550 inthe legends which recount the 550 inthe there is extreme itching of the countries of Buddha.

There is extreme itching of the countries of Buddha.

common being when the obstructed, and (2) when obstruction. The first is

as hepatogenous, and the nd in The first may sence of gall-st-: (see CALCU of the

be retained and absorbed in the blood, and so the coloration arises. The second class of J. may be caused

rice, oil, and wine. Pop. 13,000.

Jatropha, a genus of Euphorbiacem, occurs in tropical and sub-tropical this is obscure, but it may be said to countries, but is found most fre- be caused by some defect which allows the bile pigments to continue to cirlist leader in the Chamber, and was culate in the blood. It may be that one of the chief champions of Dreylus, the bile is not excreted from the In 1902 J, became vice-president of blood because the liver cells become the Chamber. His chief work is the less active, or it may be that the red Histoire Socialiste 1789 - 1900, pubcorpuscles of the blood become so lished in 1901, rapidly destroyed that the blood Java, one o toms and death.

Malignant jaundice.—A rare form of non-obstructive J. which accompanies yellow atrophy of the liver, in which the liver shrinks greatly and the liver cells disintegrate rapidly, resulting in a very speedy death.

Jaunpaur, the cap. of a dist. in the United Provinces, India, and is situated on the R. Gumti. It was originally the capital of a Mohammedan kingdom, and contains mosques, the remains of the fort, and other similar structures. The river here is crossed by a bridge built in the 16th century. Pop. 43,000.

Jauréguiberry, Jean Bernard (1815-87), a French admiral who served with distinction in the Franco-German War. He was born at Bayonne, entered the navy (1831), and subsequently served in the Crimea, and in China. He was Minister of Marine from 1879-80, and from 1882-83.

Jauregui y Aguilar, Juan de, Cheva-lier de Calatrava (c. 1570 - c. 1649), a Spanish poet and painter. He visited

de Sedano, peintres espagnols; L. de Sedano, Parnaso español, i., 1768-78; Biblioteca

de autores españoles, xlii.

Jaurès, Jean (b. 1859), a French
statesman and man of letters, born at Castres in the dept. of Tarn. 1883 he was appointed to the chair of philosophy at the University of Toulouse, but resigned his professorship on his election in 1885 to the Chamber of Deputies. He is a fervent Social-

Java, one of the larger islands of rapidly destroyed that the blood java, one of the larger islands of plands cannot get rid of the excessive the Dutch East Indies in that porpigment. In cases of obstruction by tion of the Malay Archipelago known gall-stones, catarrhal J., and by pressure of the pregnant uterus or of is 622 m., breadth 120 m., and it faces in the bowel, or congestion of covers an area (with Madura, a small the liver, recovery is comparatively island off the N.E. coast) of 50,554 the liver, recovery is comparatively island on the N. B. coast) or ov, over certain. It is more serious when result- | sq. m. J. is washed on the N. by the ing from cirrhosis of the liver and | Sea of J., on the E. by the Strait of tumour of the liver; and when it results from acute diseases or from and on the W. by Sunda Strait. The poisoning, it is a very serious symposoning, it is a very serious symposoning, it is a very serious symposoning. The poisoning is little developed, and to mean the poison cases caused by mental emotions from end to end of the island there disappear generally quickly, but it is a mountain chain called Gunung may be followed by nervous sympthical Kendang. Alluvial plains extend Kendang. Alluvial plains extend along the N. coast, and towards the S. Java falls steeply towards the sea. Many of the volcanoes in the mountains are still active. Numerous rivers flow from the N. and S. sides, affording supplies to artificial watercourses, and carrying fertility with them; only two, however, are navigable for large boats. The climate is rather hot and unhealthy on the coast. but salubrious and pleasant in the hills. the more elevated regions being remarkably healthy. The days are, as a rule, hot, but moderated by land and sea breezes; the rainy season lasts from November to March. The range of J.'s vegetation follows that of its temperature and is one of astonishing fertility. The coast is fringed with cocoanut trees, and the ground behind them to the foot of the mountain chain is well cultivated. There are large rice fields and sugar plantations, and cotton, cinnamon, and tobacco are freely grown, and many parts of the coast are fringed with mangrove. Farther inland are Rome (1607), and produced a verse found palms, tree-ferns, and screw translation of Tasso's Aminta. His pines. In the forest region, the trees Rimas appeared 1618, the Discurso are richly clad with ferns and enorfound palms, tree-ferns, and screw pines. In the forest region, the trees ongor- mous style teak. mous fungi, and consist mainly of style teak. The most noted Javanese speci- plant is the chettik, or upas, the epic, famed poison-tree. Many of the ist. of loftiest trees crown themselves with '. des blossoms, and shrubs and herbaceous plants give brilliant effects at the edge of the forest and the sides of the highways. Rhododendrons, of the highways. magnolias, myrtles, orchids, pitcherplants, etc., abound, and it is esti-mated that the total number of species of Javanese plants is over 5000. J. is not so rich in faunatigers, rhinoceros, deer, and wild swine are the chief of the quadrupeds, Several species of crocodiles ist, and embraced the cause of the serpents are found, and of birds there employees in the Carmaux strike. In arc only a few conspicuous for their 1893 he became the recognised Social-plumage and none distinguished by

their song. Insects cover the ground, King John Sobieski, King of Poland. and plants in countless numbers. The population of J. is almost entirely agricultural, and is distributed over the island in villages, each each over the island in vinages, each governed by a native chief of its own choosing. Rice forms the staple food of the natives and is raised in large quantities; coffee and sugar also form staples of the island. Cotton, indigo. nutmegs, pepper, tobacco, tea, cocoanuts, and cochineal are likewise cultivated with varying success. The natives consist of the Javanese proper the Sundanese, and the Madurese, and the population is 30,098,008. The Javanese are small in size, of a yellowish hue, with brown or black eyes, and long, lank, coarse hair. Their lips are thick, and teeth naturally white. They are a sober, patient race, and easily led in most matters. In former times, as regards religion, they were Buddhists and Brahmins, but are now nominally Mohammedans. J. is ruled by a governor-general or viceroy, who has command both of army and navy in all the Dutch provinces of the Indian Archipelago. Batavia is the seat of government, where there is a high court of appeal. The natives are under native tribunals, superintended by Europeans in certain instances, and schools for primary instruction have been established at Batavia and See Sir Stam.

of Java; E. R. Garden of the East; J. Chailley-Bert, Java et ses habitants; Worsfold. A Visit to Java; P. J. Veth, Java, Geographisch,

Java, Geographisch, Historisch (3 vols.), Ethnologisch, 1875-78, Java Sea, sometimes called

Sunda Sea. It is situated between Java and Borneo, and stretches from the W. of Celebes to the E. of Sumatra. Javea, or Jabea (ancient Xavea), a tn., 45 m. N.E. of Alicante, Spain. Its products are wines, lemons, man-

darin oranges, and muscatel raisins. Pop. 6600.

distilling, and pottery making. the famous Italian gardens is tl castle which was the residence ("

Szkto near by is known for its sulphur springs. Pop. 10,208.

Jaworzno, a tn. of Galicia, Austria, 30 m. W.N.W. of Cracow. There are petroleum wells, coal mines, and zincsmelting works. Pop. 13,134.

Jay, or Garrulus glandarius, aspecies of the sub-family Garruline and of the crow family (Corvide), and is a native of Europe, while other species of the same genus are found in India and other parts of Asia and in Japan. In the New World the blue Js. (Cyanocitta) are found in N. America and Cyanocorax in Central and S. America, these latter birds being more blue than the common J. In England the common J. has become rare owing to persecution, and this is the case in Scotland and in some parts of Ireland, It is characterised by a crest of black and white feathers, a black tail, and white and black bars on the wing coverts, its body being a brownish colour on the upper surface and lighter underneath. It has also patches of blue. The Js. are sly and retiring in their habits, and have a screeching cry with the power to vary it by mimicking other birds. feed chiefly on snails, insects, worms, and nuts. They hide their nests in trees with thick foliage and lay about six or seven eggs at a time. Jay, Harriett, an author

actress, was brought up by Robert poet and Buchanan, the Scottish writer, who married her elder sister. She collaborated with Buchanan in several of his works, e.g. The Shop-walker and Two Little Maids from School, and published independently: The Queen of Connaught, 1875; Madge Dunraven, 1879; Two Men and a Maid, 1881; and A Marriage of Convenience, 1885 venience, 1885. As an actress she has has also won great distinction.

Jay, John (1745-1829), an American politician and man of law, born at New York. He was called to the bar in 1768. In 1774 he was elected to the first Continental Congress and Javolenus Priscus, an eminent to the first Continental Congress and Roman jurist, born about the beroman jurist to the first Continental Congress and
the Sabinus, and he became a leader of became president of the Congress in Sabinus, and he became a leasur of the Sabinian or Cassian school.

1778, and was appointed minister to priscus was a member of the council of Antonius Pius. See Vit. Ant., xii., chief justice of the Supreme Court. In 1794 he drew up a treaty, called Jawhur, a native state in Konkan div. of Bombay, India. Area div. of Bombay, India. Area matter and between the United States and matter and particle was properly of Antonius Pius. See Viv. Am., and Plin. Ep., vi., 15.

Jawhar, a native state in Konkan div. of Bombay, India. Area trade between the United States and 310 sq. m. Principal products, teak and rice. Pop. 48,000. The chief organised in the interests of both village is J. Pop. 3567.

Jaworow a tn. of Galicia, Austria. York in 1795. He was a very able the field of Vives have

Lives have Jay (1833). Pellew (1890).

very born

Early

Cornelius Winter provided for him His to be educated as a minister. devotional writings had a vast cir-culation in Francisco in erica.

Jay, a celebrated born in New York. He became a judge in 1818. He founded the American Bible Society (1815), but the greater part of his energies were devoted to anti-slavery interests. The Anti-Slavery Society had in J. one of its most fervent and eloquent members. In 1833 he published the Life and Writings of John Jay.

Jayadeva, a Hindu poet, best known as the author of the mystic poem, Gitagovinda. His date is disputed, Lassen believes he flourished in the 12th century. He is considered the finest lyric poet of India. English versions by Sir William Jones and

Sir Edwin Arnold.

Jazyges, a Sarmatian tribe, who lived N. of the Sea of Azov. In the 1st century A.D. some of them settled Hungary, others N. of the Car-

pathians.

Jeaffreson, John Cordy (1831-1901), a British author, born at Framling-ham in Suffolk. His chief works are: Olive Blake's Good Work, 1862; Live it Down, 1863; and Not Dead Yet, 1864, novels with striking descriptive passages and subtle delineation of character. About Doctors, 1860; About Lawyers, 1867; About the Clergy, 1870; and Brides and Bridals, 1872, humorous work by fresh insight and

The Real Lord Byron, Shelley, 1885; and Laay Hammuon and co. tn. of Roxburghshire, Scotland, Lord Nelson, biographies which are situated on Jed Water, 56 m. by newhaps representative of his best perhaps representative of his best work. He also published an interest-

ing Book of Recollections in 1894.

Jeanne d'Albret (1528-72), Queen of Navarre, the daughter of Henry, King of Navarre, Duke of Albret and peer of France, and Margaret, sister of the French king, Francis I. She married Anthony de Bourbon, Duke of Vendôme, and their son Henry became Henry IV., King of France.

Jeanne d'Arc, see JOAN OF ARC. Jeannette, a bor. of Westmoreland co., Pennsylvania, U.S.A., 23 m.

Ocean.

Jebail, or Jebeil (? ancient Byblos),

Jay, William, D.D. (1769-1853), a It has old walls, a fine citadel, and other ancient buildings. Pop. 3000. Jebb, Sir Claverhouse Richard

(1841-1905), a classical scholar and writer, born at Dundee. He was senior classic at Cambridge in 1862. He was In 1875 he was made professor of Greek at Glasgow University, and in 1889 was of Greek chief promoter giate classical helped to organise the Cambridge Philological Society. He was also one of the founders of the famous British School of Archeology at Athens. 1891 he became Unionist M.P. for Cambridge University. J. brought

out some of the finest editions of the Greck classics. His finest works are perhaps his edition of and commentary on The Attic Orators, and his edition of the works of Sophocles with translation and commentary in seven volumes. His other works include: The Characters of Theophrasius, 1870; A Primer of Greek Literature, 'oduc-1877:tion to d Influence

Bacchy, and Arabic word meaning a mountain, used in com-

pounds to form place names,

Jebel-Nur, a mountain, near Mecca, abia. The Moslems believe that here Mohammed received the Koran from the angel Gabriel.

Jebel Shammar, Shummer, or Shomer, a dist. of Central Arabia in the N. of Nejd. It contains two granite ridges traversing it from E. one of which is about 6000 ft.

The capital is Hail. Pop. 150,000. ! iburgh, a royal burgh and the

name now The ne of , the

Border wars. The abbey, which dates from the 12th century, is the remains of the church, attached to an founded Augustinian priory, founded by David I. and laid low by the English during the first half of the 16th cen-tury. The old castle was destroyed in 1409, and in its place now stand the remains of a prison. This town is also associated with Mary Queen of Scots Prince Charles Edward, Burns, and others. It is the chief seat of the woollen manufacture in the district, and there are also iron foundries here. Pop. (burgh) 2752.

Jedda, Jeddah, or Jiddah, a seaport of Hedjaz, Arabia, situated on the Red Sea, between 50 and 60 m. W. by a tn. on the coast of Syria, near Mt. Red Sea, between 50 and 60 m. W. by Lebanon and 18 m. N.N.E. of Beirut. N. of Mecca, of which tn. it is the port.

Consequently the pilgrims bound for procure early intelligence of the prothat city disembark here, a great visiting it annually. number It exports hides, mother-of-pearl, coffee, and carpets. Pop. 30,000.

Jedo, or Jeddo, see Tokyo. Jeejeebhoy, Sir Jamsetjee, Bart. (1783-1859), an Indian merchant and philanthropist, born at Bombay. His parents were poor, and J. had a severe struggle to win eminence. He was the first to open commercial relations with China on systematic lines, and the greater part of his riches was accumulated by the trade he carried on with that country. His philanthropy was extended in all directions and to all sects. He gave hospitals, schools, colleges, and public works. In 1842 Queen Victoria bestowed knighthood on him, and in 1858 a baronetoy. The successors to the title have continued the great philanthropic tradition.

Jefferies, John Richard (1848-87), born at Coute Farm, near Swindon, in the co. of Wiltshire. He went to school at Sydenham, then at Swindon until about fifteen, but his greatest teacher was his father, who made him acquainted with all the wonders of nature and taught him to make use of his faculties of observation. He became a journalist and was pointed editor of the North Wills Herald during the years 1866-67. His letter on 'The Wilkshire Labourer' in the Times (1872) brought him into public notice, and from now onwards his success was assured. Amongst his works may be mentioned: The Gamekeeper at Home, 1878; The Story of My Heart, 1883; Life of the Fields, 1884; and The Open Air, 1885. His works contain many sublime and

His first notable ap-Philadelphia. pearance on the stage was as Asa Trenchard in Our American Cousin, His most famous impersonation was in the role of Rip van Winkle, which was a great success in America and in London. His other famous parts were as Bob Acres in The Rivals and as Caleb Plummer in The Cricket on the Hearth. He has left an

the bar in 1767 and practised for J. himself, while the most brilliant of Assembly J. was one of the chief In 1806 J. went to London, where he promoters in organising the Standing Ind his famous duel with Moore, so Committee of Correspondence and satisfied by Byron. Still continuing Inquiry, the object of which was to to practise as an advocate, he rose to

ceedings of the British parliament. In 1775 he was delegated from Virginia to the general Congress and drew up the greater part of the Declaration of Independence. He was governor of Virginia in 1779 and 1780-81, and took an active part against the incursions of Lord Cornwallis. In 1784 he was appointed Congress minister to France. In 1797 he was elected vicepresident, and president in 1801, an office which he again held in 1805. Through J.'s policy the States acquired Louisiana from the French for 15,000,000 dollars and the free navigation of the Mississippi. J. believed in the supremacy of the individual states and fervently opposed Adam's federal policy. In his last years of retirement he founded Virginia University

Jefferson City, the cap. of Cole co. and of the state of Missouri, situated about 110 m. W. of St. Louis. It contains the state house, court house, and several other institutions. Pop. (1910)

11,850.

Jefferson River, a river of the U.S.A. It rises in S.W. Montana and finally joins the Madison and Gallatin Rivers, the three streams forming the Missouri. It is about 150 m. long.

Jeffersonville, a city of Indiana. U.S.A., co. seat of Clark co. It stands on the Ohio, opposite Louisville, Ken-The city possesses railway machine shops and iron tucky. works, foundries, and also makes boats. Pop.

(1910) 10,412. Jeffrey, Francis Jeffrey, Lord (1773-1850), a Scottish judge and critic, educated at Edinburgh, Glasgow, and Oxford. Though son of a staunch Tory, as he grew up he joined the Whigs, which seriously affected his beautiful thoughts and betray an prospects when he was admitted to intimate knowledge of nature. Field and Hedgerow was published after years with little success, either as his death. See Life by Ed. Thomas. lawyer or journalist, his opportunity Jefforson, Joseph (1829-1905), at came in 1802, with the founding of famous American comedian, born at the Edinburgh Review. Sydney Smith was first editor, but when he removed to London in 1803 J. was placed in charge. Retaining control for twentysix years he raised the Edinburgh to the very highest rank. At first it was non-partisan, Scott and other Tories contributing, but in 1808 a strong anti-government article by J. on the Spanish War caused Sir Walter's party to secede and establish a rival Autobiography, 1889.

Jefferson, Thomas (1743-1826) the Edinburgh's success were its inpresident of the U.S.A., born at dependence and high literary qualishadwell, Virginia. He was called to

resigned his editorship. In 1830 he was made Lord Advocate, and en-tered parliament, where, however, his career was not brilliant, though he was hard-working and greatly respected. In 1834 he accepted a judgeship and a peerage, thenceforward confining himself entirely to his duties on the bench, and the enjoyment of

social life. Jeffreys of Wem, George Jeffreys, Lord (1648-89), a Lord High Chancel-Lord (1648-89), a Lord High Chancel-lor of England, born at Acton, Den-bighshire. In 1668 he was called to the bar, and in 1680 became chief justice of Chester. J. prosecuted Lord William Russell for his part in the Whig Conspiracy, and infamously suborned a partial jury in violation of the law to condemn Algernon Sidney for high treason on the evidence of one witness only-the unprincipled Lord Howard. But J.'s culminating action of cruelty was the Bloody Assize (1685), whereby over 300 victims were drawn and quartered, and a thousand sent as slaves to the W. Indian plantations. In opposition to the Long Parliament the Court of High Commission was revived, and J. placed at its head (1686). In 1688 J. was the king's chief instrument in securing the committal to the Tower of the seven bishops. But the fall of James II. drew in its train the fall of J.; he fled, was arrested, and died miserably in the Tower.

Jehangir, or Salim Nureddin Mo-hammed (1569-1627), became King of Delhi and Agra in 1605, succeeding his father Akbar. Previously to his accession to the throne he had rebelled against his father and had attempted to seize Agra. J. was of an had amicable and jovial disposition, but he was hopelessly addicted to high living, gaming, and other forms of self-indulgence. Utterly unfit to con-trol the affairs of state, he left his kingdom to the control of his more energetic queen, Nurmahal. The most important events of his reign were the wars in the Deccan and The Udaipur, and the loss of Kandahar. During the last decade of his reign, his captains rose in insurrection, and his sons entered in a conspiracy against him. J. has left a volume of memoirs entitled Jehangiri, full of delightful self-revelations, and sidelights on court life in India. Captain

for three months, being dethroned by and the Mount of the Temple.

a high position at the bar, and in 1829 | Nebuchadnezzar and carried into captivity at Babylon. But in the thirty-seventh year of his captivity, Evil-merodach, King of Babylon,

released him, and granted him an allowance for the rest of his life (see 2 Kings xxiv. 6-16; xxv. 27).

Jehoiada, a high priest of Judah, during the reigns of Ahaziah, Athaliah, and Joash. When Athaliah, the mother of Ahaziah sought to deriver mather of Ahaziah, sought to destroy all the seed royal, J. protected Joash, the young son of Ahaziah, in the temple, and subsequently anointed him king while the guard slew Athaliah, the usurping queen, at his in-structions. J. then destroyed the house of Baal, instituted a public fund for the repair of the temple, and exe-cuted the work of restoration (see 2 Kings xi. and xii. and 2 Chron.

xxiii., xxiv.). Jeholakim, or Eliakim, King of Judah (608-597 B.C.), son of King Josiah and Zebudah, the daughter of Pedajah, received the throne as a vassal of Pharaoh-nechoh. Nebuchadnezzar, King of Babylon, sacked Jerusalem, and J. became his vassal for three years (c. 605-602 B.C.). His revolt from allegiance to Babylon roused an attack on Jerusalem by the Chaldees and Syrians. Jerusalem was sacked and the king slain (see 2 Kings xxiii. 34 ff., xxiv. 1-5; 2 Chron. xxxvi. 4-8).

Jehoshaphat (c. 876-851 B.C.), King of Judah, succeeded his father Asa. and commenced his reign as an able and wise ruler, rooting out idolatry, and building strongholds throughout the land. But the prosperity of his reign was reversed when he sought affinity with Ahab, King of Israel. Ahab, seduced by false prophets and in opposition to the warning of Micaiah, set forth on an expedition against Ramoth-gilead, and per-suaded J. to join him. Alab suc-cumbed to a wound received in the battle, and J. only escaped with his life. J. returned to Jerusalem and reformed the judges and priests, and carried out a successful campaign against Moab and Ammon. But ruin awaited a mercantile expedition to Tarshish sent by J. in conjunction with Ahaziah, King of Israel (see 1 Kings xv. 24; 2 Kings iii.; 2 Chron. xvii.-xx.).

Jehoshaphat, Valley of, mentioned in Joel iii. 2 as the place where the Lord shall pronounce His judgments ngnts on court me in mana. Captain in Joel ii. 2 as the place where the Hawkes visited the king at Delhi, and Lord shall pronounce His judgments against the enemies of His people. The valley has been identified with the valler of Berachah where Jehosham, is Jehojachin, called Jeconiah, King Jehojachin, called Jeconiah, King Jehojachin, being detherned by the state of the valley is the gorge for three months, being detherned by and the Manut of the Tample.

Jehovah, the principal name for Kuban, Caucasia, Russia, on the God in the O.T., appearing nearly coast of the Sea of Azov. Its exports 7000 times. It is now felt that there include corn, flax, and wool. Pop. is no authority for such a pronunciation, which is founded on a misapprehension. The original word, known as the Tetragrammaton, consists of the letters JHVH, or better, YHWH. This name came to be considered too ineffable to pronounce, and hence the vowels of the word Adonai (lord) were inserted, as a direction to the were inserted, as a direction to the reader to replace it by this word. Thus we have the form YeHoWaH, or JeHoVaH—short e taking the place of short a. If the Tetragrammaton is preceded by the word Adonai, the vowels of Elohim (God) are inserted, giving the form YeHoWiH. There has been much controversy both as to the original form of the word and also set at its origin and word, and also as to its origin and meaning. The first is now probably finished, there being general agreement in the acceptance of Ewald's suggestion that the true form is Yahweh. The forms Yahu and Yah also occur, both separately and as a component part in proper names. The question as to the origin of the The question as to the origin of the title is more difficult. Exodus iii. 13 and vi. 3 imply that it was first revealed to Moses, but it has already been used earlier (e.g. Gen. iv. 26). The use of the name, indeed, formed the chief means by which the composite authorship of Genesis was discovered (see HEXATEUCH). have held that it was borrowed from the Kenites who inhabited the region around Sinai, and that the Mosaic revelation was only one of meaning and application. The meaning is given in Exodus iii. 14, by God himself, as 'I am that I am,' and later simply 'I am,' and accepted to this interpretation which is generally accepted the word is the third response simpler. the word is the third person singular imperfect of the archaic stem HWH (to be). Many scholars, however, have regarded the idea as too abstract for so early a period, and have sought

so early a period, and have sought for a more concrete explanation.

Jehu, son of Jehoshaphat, and grandson of Nimri, was King of Israel during the latter part of the 9th century B.C. He was general under Jehoram, and during the illness of that prince at Jezreel he seized the throne and preceded to secure it be. throne, and proceeded to secure it by

kaisha seems to have supported him! as a useful substitute for Jeho from whom little action could been expected. J. is mentioned tablet of Shalmaneser II. (\$12 B.C.) thans, and was appointed Ban of as paying tribute to Assyria. | Croatia (1848). He took an active as paying tribute to Assyria.

46,308.

Jejunum, meaning empty, one of the three arbitrary divisions of the small intestine (q.v.). It is about 1‡ in. wide, and 8 ft. long, and is the connecting portion lying between the duodenum and the ileum. There are not distinct lines of demarcation between these three parts, but there are certain peculiarities of internal structure to be observed in comparing the upper and lower ends of the entire tube. The convolutions of the J. occupy part of the umbilical and left lumber and illac regions of the abdo-men. In general, its structure re-sembles that of the duodenum, its mucous membrane is marked by valvulæ conniventes and villi, crupts of Lieberkühn occur, but Brunner glands are absent, except possibly in very small numbers at the duodenal end of the J.

Jelalabad, sce JALALABAD.

Jelal-ud-din, or Rumi, a famous Sufic poet of Persia, born at Balkh in Khorasan. In memory of his son Ala-uddin, and his instructor Sufi Ala-uddin, and his instructor Sufi Shams-uddin, both killed in a mob riot, he founded the order of Maulawi dervishes. This order is characterised by the mystic dance (Sama), symbolical of the movement of the spheres and of the soul. His most famous works are his odes mainly composed in honour of the Maulawi dervishes, and his great poem the Mathnawi.

Jelatma (Russia), sec YELATMA.

Jeletz, see ELETS. Jelf, Richard William (1798-1871). an English theologian, born at Oaklands, Gloucestershire, brother of W. E. Jelf, was appointed tutor to Prince George of Cumberland in 1826. In 1844 he became principal of King's College, London, and was appointed Bampton lecturer at Oxford. subject of his addresses was 'A Inquiry into the Means of Grace.' Jell, William Edward (1811-75),

British theologian, born at Oaklands, of R. · at Oxford

· The Chris-'s at Carle-Caerdeon in

1 1842 he published a Greek which, for many years, d its position as the stan-

-book. Tallachian Taran (1801-

minis-He Croa-

Jeisk, or Yeisk, a tn., prov. of part in the Hungarlan rising (1818-49),

Jelly, the solid state of matter produced by the addition to a liquid of some colloid substance, e.g., gelatine. A distinguishing feature of J. is its elasticity. Js. are much used as an article of food, and are eaten as sweets or savouries. The best J. is made from calves' feet, and is very strength-ening. Ox-foot J. is also an excel-lent dish for invalids. Gelatine is lent dish for invalids. much used in the manufacture of sweetmeats, e.g. in gums and pastilles. Of vegetable Js. agar-agar is well known, and is useful as a media in bacteriology. Of the morganic J. that produced from a solution of silicic acid is best known.

Jelly-fish, bell-shaped or shaped marine hydrozoa, embracing Meduse, Ctenophora, and Siphonophora. In the Meduse the body is shaped like a bell or a parachute. The body is bridgered by a fringe of writhing tentacles, supposed to respublished the control by the control of the c semble the snake-locks of the gorgon Medusa—hence the name. The animal normally swims with its subumbral surface downwards, distinguishing feature of the J. is the misogloe, a diaphanous and gelatinous misogloe, a diaphanous and gelatinous secretion layer, situated between the ectoderm and the endoderm, and developed in great quantity. On the subumbral surface is the mouth, bordered by four lips which bear stinging threads. The mouth leads into the stomach. From the stomach the radial canals lead to the edge of the umbrella; these are blue, and in the Aurelia aurila are sixteen in number, eight, being simple, and number, eight being simple, and eight branched. These meet a ring canal which runs round the edge of the umbrella. The nervous system follows a ringed course round the umbrella. In the typical Aurelia, the sex organs are seen hanging from the subumbral cavity in four fans. The subumbral cavity in four fans. The muscular system is arranged in a circular formation on the under surface of the umbrella. The muscles contract and the water is thereby pumped from the subumbrella, and the animal is jerked upward. This is the only means of locomotion. Medusæ seize their prey by their tentacles; the victim becomes paralysed and is victim becomes paralysed and as drawn into the mouth. Medusæ are either male or female; hermaphrodites are found, but are rare. Medusæ aresometimes reproduced by budding, but who sowned have the sowned. but when reproduced by the sexual method, the fertilised egg develops a free-swimming larva which, as in the case of the aurelia, becomes fixed,

and commanded his troops against fission, and ultimately *cphyra* are Montenegro (1853). He wrote and published poems. freed and develop into J. The *Clenophoræ* are a species of J. which have both radial and bilateral symmetry. They are bell-shaped, the mouth being situated at the broader end. They have eight meridians of iridescent paddles. Locomotion is effected by strokes of the paddle.

Jemappes, a tn., prov. Hainaut, Belgium. Here the French under Dumouriez defeated the Austrians, and became masters of Belgium (1792). There are rich coal mines, glass and chemical works. Pop. 14,000.

Jemeppe, a tn., prov. Liège, Belgium, 5 m. S.W. of the tn. of Liège; has iron works and coal mines. Pop.

Jena, a tn. in the grand duchy of Saxe-Weimar in Germany. It is situated on the l. b. of the Saale, about 12 m. S.E. of Weimar, and is sur-rounded by limestone hills. It is an old town, and contains among its buildings of interest the Fuchs Turm; buildings of interest the Fuchs Turm; the Black Bear Inn, the place visited by Luther when fleeing from Wartburg, and most noted of all, the university buildings founded in 1558; Schiller, Fichte, and Schlegel, being among its professors. J. is also remembered as the scene of the battle between the French and Prussians in 1806—the latter enforture statel. 1806-the latter suffering a total

defeat. Pop. 38,487.

Jenghiz Khan (1162-1227), a Mogul conqueror and emperor, son of a petty Tartar chief. By skill and ruthless daring he gradually subdued all Mongolia, changing his original name of Temuchin to Jenghiz (perfect warrior). In 1212-14 he conquered Northern Four years later an insult offered to his envoys in Turkestan led to his invading that country with an immense host. In the first battle the Turkomans lost 160,000 men, and for seven years the warraged with terrible cruelty, many cities being totally de-stroyed and their inhabitants mas-sacred. J. swept through Afghanistan into the Punjab, which he devastated, returning afterwards to Turkestan. Another Mogul army Turkestan. Another Mogul army penetrated into Russia as far as the Dnieper, carrying off immense spolls. In 1225 J. again attacked China, capturing cities and provinces with frightful carnage, but didd in returning from the campaign. It is said that he once purposed exterminating the Chinese and turning their country into prairie, but was dissuaded by one of his counsellors.. His wars are computed to have cost six million lives; their greatest result was the driving into Asia Minor of various Turkoman tribes, who afterwards budding tentacles at one end and developing a hydra-tuba at the other. founded the Ottoman empire and The hydra tuba suffers transverse invaded Europe. The empire founded

to Kublai Khan.

Jenkin, Henry Charles Fleeming (1833-85), an English engineer. In 1859 he with Lord Kelvin made experiments in the manufacture and use of cables. His researches on gutta-percha were of the utmost value. He was elected F.R.S., and was appointed professor of engineering at University College, London, in 1865, and at Edinburgh University in 1868. He published a valuable text-book on Magnetism and Electricity. He invented 'telpherage,' an electric automatic system for transporting goods. See R. L. Stevenson's Essays, Talk and Talkers (' Jenkin is Cockshot').

Jenkins, Robert, an English merchant sea-captain of the W. Indies. He appeared before the House of Commons with one of his ears in cotton, alleging that the Spaniards had boarded his vessel, accused him of smuggling, and cut off his ear. This provoked war between England and Spain, and led to Walpole's downfall

(1742)

Jenkinson, Anthony (d. 1611), an English merchant and sea-captain. He visited Asia Minor and N. Africa (1546), and in 1557 was appointed agent of the Muscovy Company. He travelled to Bokhara (1558-59), and commissioned to trade with Persia. By his efforts his company obtained the monopoly of the White Sea trade. See Early Voyages and Travels in Russia and Persia (Hak-luyt Soc., 1886), and blographical introduction by E. D. Morgan. Jenkinson, Robert Banks, second

Earl of Liverpool (1770-1828), states-man, entered parliament in 1790, and after holding minor offices became Foreign Secretary under Addington from 1801 to 1803, in which latter year he went to the Upper House as Baron Hawkesbury. He was Home Secretary and leader of the House of Lords, 1804-6, and again in 1807-9. He had succeeded to the earldom in the previous year. He went to the War Office in 1809 under Perceval, and on the death of that Prime Minister formed a ministry, of which he remained the chief for fifteen years. It was, therefore, under his supreme direction that the last years of the war with France were carried on, and the arrangements for the imprisonment of Napoleon arranged. He held office at a time when questions of domestic policy of great importance came up for settlement. The matter of Catholic emancipation was pressing, but to increasing the privileges of the Roman Catholics he was opposed. There was great distress in the

by J. soon broke up, much of it falling he grappled to the best of his ability, and was prepared to reduce the duty on corn. A man of sound qualities, he lacked brilliance, but he had many of the qualifications of a sane un-ambitious leader. There is a bioambitious leader. There is a biography by C. D. Yonge (1868).

Jenks, Edward (b. 1861), an English

barrister and author. Principal and director of legal studies of the Law Society. At one time he edited the Independent Review. He lectured at Cambridge (

96), Oxford examiner in

Civil Service Commission. for the Among his publications are: The Doctrine of Consideration in English 1893; The Government Victoria, Australia, 1893; Law and Politics in the Middle Ages, 1897; Modern Land Law, 1899; Parlia-mentary England, 1903; Husband and Wife in the Law, 1909.

Jenné, a tn., an important centre of commerce in Upper Senegal (French), on the R. Niger, 250 m. S.S.W. of Timbuktu. Once the capital of the

Songhoi empire

Jenner, Édward (1749-1823), an English physician and discoverer of vaccination, born at Berkeley, Gloucestershire. Left an orphan at six years old he was brought up by his eldest brother, the Rev. Stephen J., and educated for the medical profession. In 1770 he became a pupil of the famous John Hunter, with whom he remained two years. clining offers of advancement in Lonhe returned to establish practice in Berkeley, wishing to be near his brother. He took great interest in the natural history of his district, founded a local medical association, general and was a favourite in society. In 1788 he married Miss Kingscote. Being much interested in a popular Gloucestershire belief that persons who contracted cow-pox were thenceforward immune from small-pox, he began a series of researches, and in 1796 proved that the theory was correct. Attempting in 1798 to introduce a system of vaccination in London, he with great opposition, nevertheless secured a hearing from many influential persons, including the royal family. Vaccination spread the royal family. through England and other countries with such results that in 1802 parliament voted J. a grant of £10,000 (raised a few years later to £20,000), and on the Continent he was elected a member of most of the great scientific societies. At home, however, the jealousy of his professional colleagues led to much bickering and country, which was on the eve of the irritation; he was worn with ingreat reform campaign, and with this cessant work, and the death of his

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wife in 1815 affected him greatly. He retired from public life, but continued his investigations until struck

down by apoplexy

Jenner, Sir William, Bart. (1815-98), an English physician, born at Chatham, educated at University College, London. In 1844 he became M.D., and in 1847 began a course of investigation by which he eventually proved the distinction between typhus and typhoid. He became professor of medicine at University College, physician to several great hospitals, and medical adviser to the royal family, attending the Prince of Wales in his attack of typhoid. Receiving a baronetcy in 1868, he was in 1881 elected president of the College of Physicians. Rather autocratic in manner, but kind and considerate, he was in such request as a consultant that he left a fortune of £300,000. His writings include important works fever and diphtheria, beside occasional papers.

Jennings, Sir John (1664-1743), an English admiral, son of Philip J. of Shronshire. He accompanied Shropshire. He accompanied various distinguished admirals of the sate 17th and early 18th centuries on their expeditions off Spain and in the Mediterranean Sea. He took part in the capture of Gibraltar (1704) and

became admiral in 1708.

Jennings, Louis John (1836-93), an Anglo-American journalist, born in London, England. He joined the staff of the *Times* (London, 1860), and was sent out as special correspondent to India (1863). In 1865 he was transferred to New York. Later he became editor of the New York Times, in which he boldly exposed the practices of the corruption of the Tammany In 1876 he returned to England, and was conservative M.P. for Stockport (1885-86). HeEighty Years of a Republican Government in the United States, 1868; Gladstone, A Study, 1887; and edited the Croker Papers, 1884, and Lord Randolph Churchill's Speeches,

Jennings, Sir Patrick Alfred (1831-97), Premier of New South Wales, born at Newry, Ireland. He began life in a merchant's office, but soon emigrated to the Victoria gold fields and eventually acquired Vales (1863). He was member of the Legislative Council, 1867; Colonial Treasurer, 1885; Colonial Treasurer, 1886-87. He represented the council of the colonial treasurer than the colonial treasurer tr and Premier, 1886-87. He represented New South Wales at the Colonial Conference in London, 1887. Jennings, Sarah (1660-1744), see

MARLBOROUGH.

the W. side of the Blue Mts., 113 m. W. of Sydney, New South Wales.

Jensen, Adolf (1837-79), a composer, born at Königsberg, taught in Russia (1856), and later in Berlin (1866-68), after having studied with Niels Gade (1858-60). His works were prolific, consisting chiefly of shortlyrical songs and pianoforte solos in the Schumann style, frequently of great beauty, but somewhat superficial in sentiment.

Jensen, Peter (b. 1861), one of the greatest authorities of the day on Assyriology. J. was born at Bordeaux, studied Hittite and Semitic archæostudied Hithte and Semitic archeology, subsequently became professor of Semitic philology at Marburg University (1892). His works are: Hithter und Armenier, 1898; Assyrischbabylonische Mythen, 1900-1; eection 'Hithtites' in Hilprecht's Explorations in Bible Lands, 1903; and Das Gilpamesch-Epos in der Welllitterateur.

Jenys, Soame (1704-87), a writer and politician, born in London, and educated at St. John's College, Cambridge. He was a lord of trade under several governments, and M.P. for Cambridgeshire, Dunwich, and Cambridge successively. His writings are on abstruse problems, one of which. A Free Inquiry into the Nature and Origin of Evil, Dr. Johnson ridiculed in the Literary Magazine. In later

years he endeavoured to counteract the mischievous anti-religious tendencies of his provious work.

Jephthah, according to the narrative in Judges x. 6 ff., was an illegiti-mate son of Gilead, after whose death he was driven out by his brethren. He became the leader of a band of freebooters, until he was recalled by the elders of Gilead to lead them against the Ammonites. This he refused to do unless he was afterwards made their judge, and this position was promised to him. He collected a large army and made a vow that if he was successful he would offer as a burnt-offering to Jehovah the first thing that came forth from his doors on his return. This vow led to the sacrifice of his daughter, which some have tried to soften into a dedication of her to perpetual virginity. later exploits were against the Ephraimites. It has been suggested that two persons, Jair and J., are confused in this account.

Jerablus, see Carchemsh. Jerash, see GERASA.

Jerba, or Girba (ancient Meniux). an island of Tunis in the Gulf of Cabes, off Africa, has an area of 425 sq. m. It is separated from the 425 sq. m. It is separated from mainland by a fordable channel formerly crossed by a Roman viaduct. There are many Roman remains, in-Jenolan Caves, or Fish River Caves, There are many Roman remains, in-beautiful stalactite caves situated on cluding a triumphal arch and two

castles. dates, and oranges grow there. The inhabitants are occupied in sponge fishing and in manufacturing woollen fabrics. The chief town is Haumt-es-

Suk. Pop. of town about 3000; of island, 40,000. Jerboa, the name popularly given members of the Dipodidæ, family of myomorphous rodents remarkable for their powers of leaping. They are terrestrial animals, inhabiting the sandy or grassy plains in Asia, E. Europe, and N. Africa. Dipus, the typical genus, is from 6 to 8 in. in length, with a long tail and naked ears; the fore-limbs are very short and have five fingers, while the curiously elongated hind limbs have only three toes. It is by means of these enormous legs that they are able to leap when in danger, but when undisturbed they walk on them in an ordinary way. The Js. are also bur---eir strong inci eir habits are on roots, seeds, insects, birds' eggs, etc., and occasionally crops. The

the Arabs. species; Alactaga is common on the Siberian steppes, A. jaculus being known as the jumping rabbit; Platydistinguished by cercomys flattened, lancet-shaped tail; Zapus is the so-called jumping-mouse of the U.S.A., and the genus Sminthus, whose legs are short and nearly equal, may be regarded as approaching most nearly to the ancestral form.

Jerdan, William (1782-1869), a journalist, wrote for many papers, and was editor of the scandalous Satirist, of the Sun, and later of the Literary Gazette (1817-50). He was a founder of the Royal Society of Literature (1821) and of the Royal Geographical Society (1830). published an Autobiography in 1852, and fourteen years later an interesting book of reminiscences, Men I have

Jeremiah, called also Jeremias and Jeremy, one of the greatest of the Hebrew prophets, is described in the first verse of the book which bears his name as the son of Hilkiah, whom some have identified with the Hilkiah mentioned in 2 Kings xxii. He be-longed to a priestly family of Ana-thoth, which he later quitted for Jerusalem. The vision by which he was inspired to take up the prophetic lished work is given in the first chapter. This took place in the thirteenth year of the reign of King Josiah (c. 627 B.C.) Five years later occurred the famous was appointed procureur-general of discovery of the Book of the Law by the island of Mauritius in 1832. In Josiah, which led to that prince's 1836 he went to Ceylon as judge, and great attempt at reform. In this J. in 1840 was made governor of Sierra

It is very fertile, olives, does not figure at all, though there is no reason to suppose but that he was in full sympathy with it. But it was not long before the prophet began to feel that no great or deep reformation could be carried out by the secular arm, and it was this that led him to take up the individualistic attitude which marks him off from the other prophets. His prophecies spread over the reigns Jehoiakim, Jehoahaz, Jeconiah. Zedekiah, and part of the period of exile. The Book of J., which is interspersed with accounts of historical incidents relating to general events and the life of J. himself added by a later hand, is tender and sad through-The prophet insists that the out. spiritual well-being of the chosen people is not bound up with their prosperity as a nation, and that only through defeat and oppression can the remnant be saved. He insists on the necessity of a spiritual religion and warns the leaders that the possession of the temple of the Lord God will not secure them from defeat. He insists that the work of the Chaldrean will be accomplished not by succouring but by oppressing Israel. On account of the pessimism and, as was thought, lack of patriotism shown in his prophecies, J. was extremely ... submit to much he had propared with the aid of his friend Baruch, was cut to pieces and burnt, and he himself had to submit to frequent imprisonment under the most revolting conditions. After the capture of the city he received permission to dwell where he wished, and so attached himself to Gedaliah, the Babylonian governor. On the death of Gedaliah, he retired to Egypt, where tradition says that he met his death by stoning at the city Tahpanes. See expositions

Ewald, Graf, Cheyne, Ball, etc. m. W. of Port-

cocoa, coffee, and logwood. The father of Alexandre Dumas, the

Pop. 7000. Jeremie, Sir John (1795-1841), a colonial judge, born in Guernsey. He practised for some years as an advocate in his native town, and from 1824-30 was chief justice of the island of St. Lucia. In 1831 he pub-Four Essays on Colonial which work was severely Slavery, attacked by the upholders of slavery. who refused to receive him when he 166

Jeréz de la Frontera (formerly Xeres), a tn. of Southern Spain in the prov. of Cadiz, situated on a vine-covered plain 12 m. N.N.E. of Cadiz. The town is an important market for grain, fruit, and livestock, but is chiefly famous for its vines from which sherry is manufactured. Indeed, the wine lodges are a characteristic feature of J., but there are other buildings of note, the 15th cen-tury Church of San Miguel, a town hall dating back to the 17th century, etc. Under the walls of J. the battle of Guadalete, which delivered Spain into the hands of the Moors, was fought in 711, and parts of the old The town was walls still remain. taken from the Moors by Alfonso X. in 1265. Pop. 62,628.

Jerez de los Caballeros, a tn. of Estremadura, 40 m. S.E. of Badajoz, Spain, is the centre of an agricultural district, producing grain, fruit, vegetables, and cork. The main wealth of the people consists of herds of swine and mules. Pop. 10,500.

Gyrfalcon, Jerfalcon, orFalcogyrfaico, the name of a species of falcon (q.v.) belonging to the Falconide: it is found in W. Russia, Scandinavia, Greenland, and Arctic America, and its colour varies from grey to white.

Jerichau, Anna Maria Elizabeth (1819-81), a landscape painter, the wife of Jens J. (q.v.). She was Polish by birth and attracted considerable attention by her rustic Italian and

native scenes.

Jerichau, Jens Adolf (1816-83), a Danish sculptor, was a pupil of Thorwaldsen. He was commissioned to carve a frieze for the royal palace of Christiansborg, near Copenhagen, and this piece of work, which was finely executed, established him in high repute. Among his best classical studies are: 'Heracles and Hebe,' 'Penelope,' and the 'Wedding of Alexander. His religious subjects include: 'The Resurrection,' Adam and Eve,' and a figure of Christ. J. also made a portrait statue of (Ersted.

Jericho, once an important city of Palestine in the Jordan Valley, 15 m. N.E. of Jerusalem. It was in the midst of a fertile district where palms, rose trees, raisins, and bal-sams grew in profusion. The town sams grew in profusion. The town was captured by the Israelites on their entry into Canaan, refortified by Hiel the Bethelite, destroyed under Vespasian, and rebuilt under Hadrian. Antony gave its groves to Cleopatra, and Herod the Great dwelt there.

Leone and knighted, publishing the hierochuntina, a species of Crucifere, same year a Letter on Negro Emancipa- which also alone forms a genus. It occurs in Palestine and N. Africa, and is able to live for a long period without water.

Jerked-beef, is beef dried in the sun. 'Jerked' is a corruption of the Chilean charqui, this mode of preservation having once been popular in

Jeroboam I., son of Nebat, was the first King of Israel after its separation from Judah on the death of He was made Solomon's Solomon. tax-gatherer in his own district of Ephraim, but the suspicion that he was about to raise a rebellion caused him to make a hasty flight into Egypt. On Solomon's death he returned, and headed the embassy to Rehoboam, asking for a lightening of On the young king's the taxation. refusal, he led the revolt of the ten tribes and was made their king (see ISRAEL). His erection of golden calves for worship at Bethel and Dan led to his name becoming a byword in later days as having 'made Israel to sin.

Jeroboam II., son of Joash, was the fourth king of the dynasty of Jehu. Comparatively little is told of him in the Biblical narrative (2 Kings xiv. 23 ff.), but even here there is one inaccuracy. It is impossible that he can have taken Damascus while Hamath (v. 28) certainly never belonged to Judah.

Jerome Bonaparte, see BONAPARTE. Jerome, Saint (Sophronius Eusebius Hieronymus), born of Catholic parents at the city of Stridon on the borders of Dalmatia and Pannonia, either in 331 or at some date between that and 340 A.D. At about the age of twenty he was sent to the Roman schools. where he studied the classical authors under Ælius Donatus. Here also he received baptism from Pope Siberius. Thence he went to continue his studies at Trier and later at Aquileia. at which universities he commenced his study of theology. He next com-menced a tour in the East, arriving at Antioch in the year 373. Here & severe illness led him to embrace the ascetic life, and he retired for four years to the desert, spending his time in penance and study, especially of Hebrew. In 379 he was ordained priest at Antioch, whence he went to In 382 he visited Constantinople. Rome on ecclesiastical business, and here he began his work on the Bible. Here, also, he met Marcella, Paula. and other noble ladies who returned with him in 386 to Bethlehem. His Cleopatra, and Herod the Great Pelagians here placed his life in jeopardy, and in 416 he was competition. Rose of, or Anastatica pelled to flee from his quiet retreat.

Jerome, Jerome Klapka (b. 1859), an English author, educated at the Philological School, Marylebone, He was by turns schoolmaster, clerk, and actor before he took up journalism. He made his reputation as a humorist in 1889, with Idle Thoughts of an Idle Fellow and Three Men in a Boat; and from 1892 to 1897 he was co-editor of The Idler with Robert Barr. He was also editing To-day at the same time. In 1886 a one-act play of his, Barbara, was put on at the Globe Theatre. This was followed by many others, including The Passing of the Third Floor Back, in which Forbes Robertson made what will probably be remembered as his greatest 'hit,' if we

except his Hamlel. Jerome of Prague (d. 1416), an early Bohemian Church reformer and friend of John Hus. His part in the Hussite movement was much over-rated. Little is known of his early years; he is said to have belonged to a noble

Hus. have been He began versity, but proceeded to Oxford in 1398. He was impressed by Wycliffe's writings, and always lived a roving life. After leaving Oxford he went to the University of Paris, then to Cologne and Heidelberg, and finally returned to Prague in 1407. Here he attracted attention by his advanced and outspoken views, and offence was given because he exhibited Wycliffe's picture in his rooms. When the repicture in his rooms. When the re- (wrote many books and pass. Insorpanisation of the Praguo University principal success as a playwight was was discussed, Hus and Jerome, as leaders of the Bohemians, incurred which Charles Matthews, the younger, then mythe death by fire, if they opposed his will. J. was arrested, but when it writers in when it writers are propulated the docwhen in prison renounced the doc-trines of Hus and Wycliffe. Later, however, he again maintained all the theories he had formerly advocated Lytton, and Douglas Jerrold. and was, in consequence, burned as a Jerrymander, see Gerry, Eli heretic.

Jerrold, Douglas William (1803-57), an author, after contributing to many papers and doing much literary hackwork, made a great success with his nautical play, Black-eyed Susan, or, All in the Downs, which was produced in June 1829 at the Surrey Theatre, with T. P. Cooke as the hero. He wrote other plays, the most popular sion of wide bays and jagged reefs. of which was Time Works Wonders The mildness of the climate and the

He died four years later. J.'s great (Haymarket, 1845), but only Blackwork was his translation of the Scriptures into Latin, which has since that the remained in use throughout the Roman Church. The best editions to this complete works are those of the Ectures, 1846. His other works in-Benedictines (5 vols. fol., Paris, 1693-1706), and Vallarsi (11 vols., Verona, 1734-42).

Jerome, Jerome Klapka (b. 1859), From 1852 until his death he edited an English author, educated at the Lloyds' Weekly Newspaper. minous writer, all that survives besides Black-eyed Susan, are The Caudle Papers. He had a keen sense of humour and a caustic wit which made him many enemies, but in his writings he was blatant rather than refined. His books now seem very old-fashioned, and even his masterpiece is little read, save by students of the humour of the forties. There is a biography by his son Blanchard J. (1859).

Jerrold, Walter Copeland (b. 1865),

an English journalist and author, grandson of Douglas William J. (d. 1857). He was sub-editor of the Observer (1892-1905), and from 1900 assistant editor of the Londoner. His works include biographies of works include biographies of M. Faraday (1891), Gladstone (1893), C. Lamb (1905), T. Hood (1907), G. Meredith (1902); Triumphs of the Printing Press (1896), D. Jerrold and Punch (1910), Highways and Byways in Kent (1907). He has edited Thackeray, De Quincey, Dickens, and othors in the Temple Classics; Nursery Rhymes (1903-12), The Book of Living Poets (1907), D. Jerrold's Essays (1903). He writes for children as 'W. Copeland.'

Jerrold, William Blanchard (1826-84), an author, was the eldest son of

84), an author, was the eldest son of Douglas J., at whose death, in 1857. he succeeded to the editorship of Lloyds' Weekly Newspaper. He contributed to many periodicals, and wrote many books and plays. His

Jerrymander, see Gerrer, Elbridge.
Jorsey, the largest of the Channel
Is, belonging to the United Kingdom.
It lies about 15 m. from the coast of
Normandy, 95 m. from Weymouth,
and 133 m. from Southampton, with which two ports it has regular steam-boat communication. The coast rises abruptly on the N., while the E., W., and S. coasts are broken by a succes-

Fruit, vegetables, and productive. flowers, especially apples and pears, grapes, pranges, early potatoes, tomatoes, and spring flowers, are exported to the English market. Cattlebreeding is another important in-dustry; the special breed of small milch-cows being kept pure by the stringent laws against the importa-St. Helier tion of foreign cattle. (27,866), the capital and chief port, is on the S. coast, but its prosperity is hampered by its harbour running dry at low water. J. governs itself by means of an 'assembly,' consisting partly of elected and partly ex officio members, with a lieutenant-governor holding the right of veto on legislation as representative of the British gov-ernment. The inhabitants are mainly of Norman descent, and the official language is French. Area 45 sq. m. Pop. (1911) 51,903. For history see under Channel Islands.

Jersey City, the cap. of Hudson co., New Jersey, U.S.A. At the N. the Hudson and Hackensack Rivers make it almost an island, whilst southward it is flanked by New York and Newark Bays. It is the eastern terminus of many railways, has spacious docks along its 12 m. of frontage, possesses many water frontage, possesses many tobacco, rubber, and sugar-refining factories, and has excellent public buildings (including a free library) and schools. Paulus Hook occupied the site till 1820, when the city of Jersey was incorporated Pop. (1910) 267,779.

on a plateau formed of two hills, bounded both E. and W. by leys, that on the E. being the br Kidron referred to in the N.T. the N. there are also two valleys. The generally exact idea of the geography and geology of J. is due to a succession of investigations which commenced in 1833. Since that time the work has gone on under various, investigators of when the Since that various investigators, of whom the most prominent are De Vogüé (1860most prominent are De Vogue (1806-63), Capt. Wilson, R.E. (1866), Capt. Warren, R.E. (1867-70), and Conder, R.E. (1872-75). Still results have been obtained b Palestine Exploration Fund commenced work in 1894, bu work is yet by no means fin Each of the two hills which for

site of the city is a natural for

natural fertility of the soil, aided by for the two are divided by a deep the exceptional industry of the in-habitants, have made the island very able that from the earliest times they were so used. The lack of water must, however, have proved a serious disadvantage. The 'Virgin's Spring' in the Kidron valley, and just outside the old city wall, is the only spring near the city, and there is but one important well within. The water in the Pool of Siloam is brought from the Virgin's Spring, by a rock-cut aqueduct, running through the old Ophel wall. The Temple (comprising the district now known as the Haram) was built on the E. hill. On the W. hill was built the upper city.

For long it was thought that the name of Jerusalem was given to the city after its conquest by David, but this judgment has been reversed by the discovery of the Amarna tablets (c. 1400 B.C.) in 1890. Here the name occurs in the form Urusalim, some 500 years before the time of David. The derivation has been variously derived from Hebrew forms meaning 'the city of peace,' 'possession of peace,' 'foundation of peace,' city of (the god) Salim, etc. In the Book of Joshua it is spoken of as Jebus, with the explanatory note 'which is Jerusalem,' and an account is given of Joshua's assault on it. It soon fell back, however, into the hands of the stranger, and it was not until the time of David that it was permanently captured and made the seat of the regal government (see DAVID). This occurred at the beginning of the (For its history 10th century B.C. down to its destruction in the time of Zedekiah, see ISRAEL, where is also Jersey Shore, a settlement on the western fork of the Susquehanna R., in the Lycoming co. of Pennsylvania, U.S.A. Pop. (1910) 5381.

Jerusalem, a city of Judea, and of the factions with which the cap. of Palestine, situated 31° 46′ N. lat., and 35° 13′ E. long. It stands are a pletcen formed of two hills. not long, however, is rebuilt, though on

by the Emperor To Hadrian, and the new name of Ælia Capitolina was given to it. During the first few centuries it passed through a period of tranquillity, but it again came into prominence, as the habit of pilgrimage to sacred places

Christ made Many

which later formed part of the Mohammedan mosque el-Aksa. In 614 the city was taken by Chosroës, the Persian, and most of the churches were destroyed. The city was recaptured by Heraclius in 627, but lost again nine years later, to remain in the hands of the Moslems until 1099. At the beginning of this period the mosque el-Aksa was erected on the site of the Jewish temple. In 1099 the city was taken by Godfrey of Bouillon and his knights, thus re-turning once more into Christian turning once more more hands. But the Latin kingdom of J. was not long-lived, nor was it by any means stable during its continuance. It fell in 1244, after having been for a short time in the hands of the excommunicate Frederick II., to whom it had been ceded by treaty in 1229, after having been captured by the Moslems. Since 1244 J. has remained in Moslem hands, and during this period its history has been comparatively peaceful and uneventful. Nothing of importance can be mentioned, save its passing in 1517 into Turkish hands. See De Vogué's Turkish hands. Temple de Jérusalem, and Les Egliscs de la Terre Sainte, 1860; Wilson's Ordnance Survey of Jerusalem: Le

flower, i.e. girasole.

Jerusalem Chamber, part of the deanery in Westminster Abbey, was originally the abbot's parlour, part of the abbot's house. It probably received its present name from the tapestries of the history of Jerusalem which formerly adorned it. The name is also noteworthy on account of its connection with the death of Henry IV., as narrated by Fabyan the chronicler (cf. Shakespeare's Henry IV., pt. 2, iv. 4). The chamber was restored in 1624, and here the Assembly of Divines met in 1643. In later times it was the scenes of the labours of the revisers of the A.V. of the Bible (version of 1881). The

a porn under

As he married a wife with a dowry of £20,000, he had no need to live by his brush. His skill, indeed, lay

chiefly in copying, and it seems that what success he had was due largely to the friendship and flattery of Pope and Walpole. J. himself, at least, had a high opinion of his paintings after Carlo Maratte, Titian, and Raphael.

Jervaulx Abbey, the ruin of an ancient Cistercian monastery which was once a great centre of life for the hamlet of Jervaulx, in Yorkshire, England. What is left of the cruciform church, the cloistral courts, chapter house, and refectory, etc., chapter house, and refectory, etc., belongs to the Transitional Norman or Early English period. The last abbot was hanged in 1537, because he was implicated in the Pilgrimage

of Grace.

Jervis, John (1734-1823), an admiral, fought in Keppel's action of 1778. He received the Order of the Bath after seizing the French ship in the same year in the relief of the course of the war with France at the course of the war with France at the time of the Revolution, he took possession of the W. Indian Is. of Martinique, Guadaloupe, and St. Lucia. In 1797 he ventured as admiral to close with the Spanish fleet off Cape St. Vincent in spite of tremendous odds; the result was a brilliant victory, in which Nelson participated. In the Addington ministry he served as First Lord of the Admiralty, but his somewhat drastic proposals of reform and his rigid economics proved an unpopular policy.

Jeshurun, 'a poetical name for the people of Israel' (Cheyne). The exact origin of the name is uncertain. It has also been suggested that it is used not for Israel only, but for rightcousness, the ideal of Israel. It occurs in Is. xliv. 2; Deut. xxii. 15,

and xxiii. 5 and 26.

Jesse, Edward (1780-1868), a writer on natural history, was appointed to a civil clerkship in 1798, and after serving as Lord Dartmouth's secretary, became deputy surveyorgeneral of the royal parks and palaces. Among his attractive and popular works are: Gleanings in Natural History, 1832-35; Anecdotes of Dogs, 1846; and Lectures on Natural History, 1861.

Jesse, John Heneage (1816-74), an historian, a clerk in the Admiralty, after endeavouring to write poetry, turned his talents to the field of historical memoirs. In 1840 he published Memoirs of the Court of England during the Reigns of the Stuarts.

with others of of which dealt of George III. intribution to literature was George Selwyn and his Pleasant to be Redde, about 1535;

Contemporaries, 1843. Jessel, Sir George (1824-83), an English judge, born in London, was of Jewish extraction. He was called to the bar in 1847, made a Q.C. in 1855, and entered parliament in 1868, as a Liberal. He became Solicitoras a Liberal. He became sometics General, was knighted, and made privy councillor and Master of the Rolls in 1873. He died in London. Jesse Window, a window, especially

common in the middle ages, which had designed upon it the genealogical tree representing the genealogy of Christ from 'the root of Jesse' (Is. xi.), father of David. There are examples at Wells, Chartres, the choir of Dorchester Abbey, Oxford-shire, and St. George's, Hanover Square, London. See Quarterly Review, January 1899.

Jessop, Augustus, D.D. (b. 1824), born at Cheshunt, studied at St. John's, Cambridge, and became headmaster at Helston in 1855, Norwich in 1859, and rector, in 1879, of Scalning, E. Dereham. Among his works are: History of Norwich Diocese, 1884; and Arcady, for Better

for Worse, 1887.

Jessore, or Jessor: 1. A dist. in Bengal, India, has an area of 2925 sq. m. It is a well-watered fertile plain, cultivated, and producigruine plain, cultivated, and producing quantities of rice, sugar, oil seeds, jute, and tobacco. Pop. 1,810,000.

2. A tn. and cap. of the above dist., 66 m. N.E. of Calcutta; has manufs. of bricks, bamboo work, mats, and coarse textiles. Pop. 9000.

Jessulmir, see JAISAIMIR.

Jest-books. There are two kinds

of J.—compilations of witty sayings and practical jokes ascribed to some particular wit to ensure their sale and popularity, and collections of facetiae admittedly brought together from The monkish various sources. raconteurs of the middle ages doubtless brought and spread many tales from the East, but numbers of typical jests and practical jokes probably existed independently throughout all countries and races of mankind, allowing for slight local changes. Among famous J. may be mentioned: Tarilon's Jests: a Hundred Mery Talys (c. 1525, 1st extant edition, 1611); The Willy and Entertaining Exploits of George Bucharan, com-monly called the King's Fool (Buchanan long being famous rather as a humorist than a humanist); Joe Miller's Jest-Book or the Wit's Vade 1739 (really compiled by ottley, 1692-1750). Other John Mottley, 1692-1750). Other similar collections are the Jests of Scogin by A. B. of Phisicke Doctour; Mery Tales, Willie Questions, and Mery Tales, Willie Questions, and and pligrims. It was thus that the Quicke Answeres, very Mery and Spaniard renounced his first and

Taylor's Wit and Mirth, 1635, more original than most; and Westminster Drollery, Choice Drollery, and Merry Drollery (reprinted by Roberts of Boston) of the Cavalier period. Con-Boston of the Cavanier period. Consult Hazlitt, Shakespeare Jest-Books, 1875; Studies in Jocular Literature, 1890; The Literature of Roquery (in Types of English Literature), 1907. See CHAPBOOKS, FOLKLORE, GOTHAM, TALES OF THE MAD MEN OF.

Jester, or Gestour, literally, a kind of minstrel or professional reciter of romances, 'gestes' (Latin gesta) or legendary tales. Later 'geste' became a synonym for a witty tale or clever sally, and gestour meant a clownish wit, merry-andrew, or buffoon kept by great people for their amusement, in imitation of the king's ' court-fool. This custom dates from very early This custom dates from very early times. Court Js. probably existed in England in Saxon times, Hitard, fool of Edmund Ironside (d. c. 1016), being one of the earliest known. Goles, fool of William I., Will Somers, fool of Henry VIII; and Archie Armstrong, fool of James I., are all farmer planned to the property of the state of t În characters. France famous Thévenin de St. Leger (14th century), Caillet and Triboulet (15th-16th century), and Chicot (16th century) are well-known. As a court institution fools did not apparently outlive the Commonwealth in England. Dicky Pierce, the last private fool, attached to Lord Suffolk's household, died in 1728. Court-fools are mentioned in the Sanskrit Ramayana; Philip of Macedon, Attila, Harun-al-Raschid, and Montezuma all owned fools, and they flourished especially in middle ages. The majority of professional Js. were by no means half-witted, at least not in later times, but merely assumed the cloak of folly which allowed of considerable licence of speech and behaviour. The traditional dress consists of particoloured garments, a fool's cap or hood with cockscomb, ass's ears, and bells, the sceptre (hauble or marotte'), and a large collar. See Douce, Illustrations of Shakespeare, 1839; Doran, History of Court-Fools, 1858; Nick, Die Hof-und Volksnarren, 1861; Chambers, Mediæval Stage,

Jesuits' Bark, see CINCHONA. Jesuits, The, or The Society of Jesus, a religious order of the Roman Catholic Church, founded in 1534 by Ignatius Loyola (q.v.). The first object of the founder was a pilgrimage to the Holy Land, but Palestine was then the scene of Turkish invasion, and warfare and bloodshed were an effectual bar against all missionaries cherished dream, and turned his Pope Paul III, for the new rule of Society of Jesus, and at Rome in

Loyola was a man of inden 't will and forc result that society has since the day following is training from

its generals.

until his final admission to the full brotherhood of the order. The first four weeks are spent in concentrated meditation over the Exercitia Spiritualia, a manual which the founder himself composed: they are spent in solitude, and the neophyte is directed by a process of intense materialistic realisation to conjure up the scenes of the Passion and the agonies of hell, etc. During this month he is encouraged to practise fasting and flagellation, but afterwards his way lies far from the path of asceticism. For the next two years he is a pupil in a Jesuit house, when he is under the careful surveillance of some master. If he shows intellectual ability, he is sent to a Jesuit college, where he receives a rigorous and thorough grounding in languages, science, and theology. His education lasts for five years, after which he is sent out to church. Thus their missions flourished teach for a similar period in some in China and Japan, and in places so school of the order. Since he completed his novitiate at the Jesuit one hand, house, he has been known as a and Calischolastic, and he is now qualified for porma on the other. ordination as a priest, and becomes a spiritual coadjutor. Those novices royal decree of 1759, and France and who, it is thought, would not profit by Spain soon followed her example. a prolonged mental training, are made Finally Clement XIV., actuated by a lay-brothers, or temporal control of the case of the

and on them devolve and menial offices of such as the distribution

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and openience. Contessors, preachers, heads of schools and colleges, and teachers among Jesuits usually belong to the rank of spiritual coadjutors. The Jesuit is not initiated into the professed until he is about fortyfive, and even then he is not a member of the 'veritable company 'unless he takes the fourth vow and thereby consecrates his life to the special service of the pope.

The general is elected by a congrethoughts towards restoring the fallen gation of professed members, in which prestige of the papacy, whose are the province is represented by the thority was so gravely imperilled by the rapid secession of Protestant or Reformed Churches in all parts, and a council of life and is advised by the reformed Churches in all parts, and a council of live assistants, whose in this way Loyola came to be inin this way Loyola came to be intrommendations, however, he is at timately associated with what is called the Counter-Reformation. In derogates the administration of the 1540 he obtained the sanction of the counter to certain chosen ermed provincials.

appoints the headsame year was elected as the first of superiors of all novitiates, colleges. and professed houses or residences. It will be seen that a great deal of power is concentrated into the hands of the one man.

In course of time the order spread over Italy, Spain, Portugal, France, Germany, the Netherlands, England, and Russia, but both in France and this country its foothold was always insecure. Its history may be divided into three periods, namely the rise, the suppression, and the restoration. In his work of building up the society and disseminating the new ideas. Loyola was generously assisted by a band of eager disciples, including James Lainez, Francis Xavier, Nicho-las Bobadilla, and Francis Borgia among his own countrymen; Rodriguez, a Portuguese, and Peter Le Fevre, a native of Savoy. So successful was their work, that on the cele-bration of its first centenary, the order counted 13,112 members dispersed over as many as thirty-two provinces. Moreover, Jesuit mission-aries were despatched to all corners of the earth, and wherever they went they carried with them learning and culture, besides the message of their church. Thus their missions flourished

Portugal expelled the Jesuits by a

issued his momentous bull,

ac Redemptor Noster, by I which the society was suppressed throughout Christendom (1773). At this time there were 61 novitiates, 176 seminaries, 669 colleges, 335 residences, 21 professed houses, and 275 missions in heathen countries: membership was estimated at 22,589. The suppression, however, was only temporary, and in 1814 Pope Pius VII. restored to the Jesuits all their former privileges. Yet, although the society to-day has many foundations in Belgium, Ireland, the United States, and Italy the in the content of the property of the content of the property of the content of the property of the and Italy, etc., it has never regained its former position of authoritative

were eventually banished once and for all in 1868; the same thing hap-pened in France in 1880; in Russia as early as 1820; in Germany in 1883; and in Switzerland in 1848. From England Jesuits were very early ex-cluded by penal laws, which imposed death as the penalty for disobedience. When these were relaxed and all religious communities were tolerated, the Jesuits came across in small numbers from Europe, but Stonyhurst in Lancashire is their one settlement of importance.

The causes which led to their universal expulsion in the 18th century may be traced back to the theories and ideals of the founder. The pope is Christ's vicar here on earth, and therefore the first duty of the true Catholic is implicit obedience to his dictates. Inasmuch as a king is merely the delegate of the people, with whom all power finally rests, he may be lawfully removed, or even murdered, if he disregard the authority of the supreme pontiff, who is superior to him exactly as the soul is to the body. This doctrine all conscientious Jesuits continued religiously to preach, and from this arose their actual or suspected this arose their actual or suspected complicity in a long series of conspiracies and plots, including the murder of the Regent Morton in Scotland: of Henry IV. in 1594; and of the Prince of Orange in 1580. Similarly, the Jesuits are believed to have had a in Babington's conspiracy against Elizabeth: in the formation of the League of Guise; in the revocation of the Edict of Nantes, and in the outbreak of the Thirty Years' War. It is clear that European countries, one and all, regarded the Jesuits as a menace to the constitution and state, by reason of certain dogmas which by reason of certain dogmas which were directly subversive of secular government. And there were other reasons, too, why the Jesuits came to be hated by the common people. Obedience was always a cardinal Jesuitic virtue: throughout every grade of the society the word of a superior was law. 'I desire,' says Ignatius, 'that you strive and exercise yourselves to recomise Christ our cise yourselves to recognise Christ our Lord in every Superior. A sin, whether venial or mortal, must be committed, if it is commanded by the Such instruction

importance. From Spain its members | ness and reliance on intellectual and often very subtle, rather than purely pious and straightforward, means of compassing what was admitted to be a worthy end; for it was thus that Ignatius directed his disciples to look for neophytes. Search out men 'less rathed here. marked by pure goodness than by firmness of character and ability in conduct of affairs, since men who are not apt for public business do not suit the requirements of the company.' Such are the faults that the popular mind sees in the character of the Jesuit, yet the self-devotion, constructive genius, and almost fanatical enthusiasm and, above all, the zeal for thorough and scientific education which members of the society have continued for centuries to show, cannot fall to impress every student not merely of history, but of the more intimate field of human psychology, and to secure even in Protestant countries some measure of sincere admiration.

Jesus Christ. It seems hardly necessary to call attention to the impossibility in the scope of a few pages of doing more than glance at a very few facts of the greatest of all lives and the way in which that life has influenced mankind. The carliest disciples were asked by the Christ, 'Who do men say that I am?' and already there were manifold answers. After the lapse of centuries they have become almost innumerable, for in every age this question has been followed by the question, ever demanding an answer, to every soul who has come in contact with Him, 'Whom say ye that I am?' The present age is, perhaps, more vitally interested in the personality of Jesus Christ than any which has preceded it, and the great strides which have been made in the science of biblical criticism have led to a better and fuller understanding of the way in which He was regarded by His apostles and the early Christians, and on the gradual evolution of the dogmas concerning Him. But these great advances in knowledge cannot be said to have made any revolution in our conceptions of the Christ, they have discovered no new gospel. For the main facts in our Lord's life and the general purpose of His work are part of the tradition of the Church. Superior in the name of our Lord and the existence of the Church can Jesus Christ, or xplained by the belief of its

iembers. As Dr. Armitage Such instructic supers. As Dr. Armitage way for that says in The Study of the istry which are the chief grounds of Gospels, with reference to the life, attack in Pascal's irresistibly witty death, and resurrection of Jesus indictment of the order in his Lettres Christ: Even if our Lord, who so Provinciales. And not only did the far as we know wrote nothing Himcommon people dislike the casuistry self, had charged His apostles also of the Jesults, but also their worldli-to commit nothing to writing, and if, as a consequence there had never | necessity for narratives of our Lord's been any written New Testament at all, the main facts would still have been handed down from generation to generation in the Christian society, whose very life was bound up with These facts were necessarily taught to all candidates for baptism, and they were summed up from the earliest times in a baptismal creed. And indeed the one method by which our Lord expressly desired that He should be kept in remembrance would by itself have handed down across the centuries, by a per-petually repeated act, the story of His death together with its amazing sequel. These great facts depend on They are no mere book-evidence. proclaimed to all the world by the continuous existence of a living society which is founded upon them. Passing on, however, from these considerations, it will be found that our knowledge of the life of Christ depends entirely upon the canonical books of the Bible. References to Jesus in non-Christian historical literature of the first centuries are rare, and the chief of these, such as those of Philo and Josephus, have almost certainly undergone Christian interpolation. Generally, however, the profane historians of the period show complete ignorance of the life of Christ, and a very imperfect acquaintance with the life and doctrines of the Christian community. trines of the Christian community. The apocryphal gospels which have come down to us consist of ridiculous legends without even the excuse of verisimilitude for their existence.
The ordinary Christian of to-day suffers no loss by being totally ignorant of their existence. Not a single fact with reference to the life of Jesus can be gained from them. Nor does the rest of early Christian literature furnish us with any knowledge beyond that which has received the imprimatur of the centuries. Turning, then, to the pages of the N.T., it is in the epistles of St. Paul that we find the earliest reference that we find the earliest reference. ences to the events of our Lord's life. the state of the events of our lotter site. It is important to notice that the references are incidental, being introduced on account of the lessons that may be drawn from the events referred to, rather than from any decimal the refer than the state than the st desire to insist upon the facts themselves. It is interesting to note how weak was the interest of the early Church in purely biographical details such as would delight us now. The earthly life of Jesus seemed then of less moment than the risen and ascended life in which all His members were sharing. It was not until certain heresies arose denying the true humanity of the Christ that the

life became clear. Even then nothing in the way of an ordered biography was produced. It is impossible here to compare with modern views the way in which the writing of history was then regarded among the people to whom fell the duty of recording the events of the sacred history, but it may be well to point out once more how little even of the time of our Lord's ministry has its events fully recorded, and how freely the order of events is changed to suit the particular purpose the author has in particular purpose the author has in view. The first of the Gospels in point of date is St. Mark. Moderate criticism, which will be followed in this article, is willing to admit the Marcan authorship, and dates the Gospel shortly before the year 70 A.D.; Dr. Harnack places it between 65 and 70. The Marcan narrative is the most vivid and shows less tive is the most vivid, and shows less signs of religious decorum than do the later works. It is interesting to note, for example, how in the First and Third Gospels, expressions relating to the emotions and most distinctively human actions of Christ are removed or softened down. St. Mark tells us of Christ's anger, compassion, and satisfacton, on more than one occasion, also of actions such as His groaning, embracing, and falling down. If we compare the parallel passages in St. Matthew and St. Luke we shall find that almost all of these disappear, with the notable exception of the agony. It is usual to follow the Marcan narrative, moreover, in regard to the order, as it is apparently less artificial than the others. It is now generally considered an axiom that the compilers of the First and Third Gospels made use of St. Mark's Gospel, and also of another source (generally spoken of as Q) which they had in common. St. Luke is accepted as the author of the Gospel which bears his name, and which is dated shortly after the year which is dated shortly after the year 70 A.D. Dr. Harnack places it some-what later, between 78 and 93. The question of the authorship and date of St. Matthew's Gospel is far more difficult, and no definite conclusions difficult, and no deninte contact of the have yet been reached, nor does one yet seem to be in sight. Dr. Harnack dates it probably between 70 and 75, areast certain later additions. The except certain later additions. except certain later additions. The last Gospel (see Gospel According To St. John) is obviously written from an entirely different point of view from that of the synoptic gospels, and stands on a different plane. Its historicity has long been regarded as a somewhat negligible quantity, but there are now some who would reverse this judgment. It attempts even less than the other attempts even less than the other

of the actual events of the life of Jesus, and an attempt to appreciate its importance would be out of place here. Let us turn, then, to St. Mark's Gospel, and, reading it rapidly through as if it were a new story, try to see how step by step the unique character of Jesus is revealed. Notice how the writer plunges immediately into the preparation for the ministry he is about to deal with, after the gospel of Jesus Christ the Son of God.' First John the Baptist is introduced, and we hear his preaching of repentance and the warning of one who will follow him. Then Jesus comes from Nazareth, we hear His words, we see His actions. At first He is welcomed as a prophet, but soon His uncompromising propaganda of reform and His resolute attack on formalism brought suspicion and Then the political situairritation. tion is gradually revealed and we see how step by step, with eyes wide open, the great teacher goes voluntarily to death, a death followed, however, by the supreme miracle of the resurrection, on which His Church was founded. It will be immediately noted how limited is the scope of St. Mark's Gospel, but some explanation of this is furnished by the passage in the Acts which stated the requirements in candidates for the place in the apostolic band rendered vacant by the death of Judas Iscariot. Only those were eligible 'which have companied with us all the time that the Lord Jesus went in and went out among us, beginning from the Lord Jesus went in and went out among us, beginning from the baptism of John, unto the day that He was received up from us, of these must one become a witness with us of His resurrection.' It will be seen that this period corresponds almost exactly with that covered by St. Mark's Gospel. Both the later synoptic evangelists felt that some information on the earlier life of our Lord was necessary, and tradition tells us that St. Luke's information was gathered from the Blessed Virgin herself. This renders possible a sketch of the life of Jesus, as the Gospels tell it. In the city of Nazareth in Galilee there lived a virgin named Mary, espoused to Joseph, the car-penter, a righteous man of the family of David. To her came the Angel Gabriel with the message that she should conceive by the power of the Holy Ghost and not in the ordinary course of nature, and should bring forth a son Jesus, who should be called the Son of God. In due course this miracle came to pass, and Joseph was assured by a vision of his wife's great work. But as the time for the when He visits them in His time of

Gospels, however, to give an account | birth of the child drew near it became necessary for Joseph and Mary to travel to Bethlehem in Judæa, and here, in a stable, the child Jesus was born, and to Him came shepherds and Magi offering their worship. The visit of the Magi brought danger in its train, and almost immediately it became necessary for the holy family, after the circumcision of the child. to flee into Egypt. Here they remained until the death of Herod, when they returned and dwelt at Nazareth. It is not very easy to date all these events, but there is now general agreement that the popular chronology places the Nativity four rears too late, and that the birth of Christ actually took place four years before that from which we date the commencement of the Christian era. The dogma of the Virgin Birth has naturally been a source of attack on the Christian faith from the beginning. It was early denied by the Gnostic heretics, but the Church then, as always, upheld this vital Those who deny the a priori truth. possibility of miracles are, of course, unable to accept it, but the Church shows no inclination to insist less on them. The miracle of the Incarnation, them. The miracle of the Incarnation, at least, forms the very foundation of the belief in Christ's divinity. Only one other incident of Christ's child hood is told us, this again by St. Luke, the story of the finding of the boy Jesus in the Temple, listening to the instruction of the doctors. It is considered with redundal parameters and the control of the doctors. especially valuable because it testifies so clearly to the true humanity of the Christ, which has often been obscured by those anxious to lay stress on the truth of His divinity. But that our Lord's was a true humanity is shown by St. Luke's statement, 'Jesus increased in wisdom and stature and in favour with God and Man.' The apocryphal gospels show none of the delicate reticence of the canonical books. A certain number of them, such as the Protevangelion and the Gospel of the Infancy, deal with the earlier parts of our Lord's life, but the incidents recorded there are fantastic and ridiculous in the ex-treme. They can hardly, indeed, be called Christian at all, so directly contrary is the spirit of many of them to the spirit of Christ. Their falsabodies indeed we also be about falschood is, indeed, so glaringly apparent that the trouble of fabricating them can hardly have been attended with any success in gaining credence for them. Except for the single incident referred to above, the canonical gospels preserve complete silence as to the life of Jesus at Nazareth. But from the reference which the Nazarenes make to Him

ministry, 'Is not this the carpenter?'

we may gather that during these years He quietly pursued the trade of Joseph. Then, after years spent in obscurity and humble labour, comes Christ's brief period of

ministry. Its exact length is un-From the synoptic gospels certain. we should gather that the ministry

was almost entirely in Galilee, and that it lasted only one year. But the last gospel relates only events which

occurred in Judæa, and speaks of three passovers spent there.

beginning of the ministry of Jesus is

closely connected with the preaching of John the Baptist. Jesus came to him for baptism, as did those others whom his preaching had moved to repentance, and the Gospels are agreed that John bore witness of Jesus, of whom he declared himself to be more that for the force witness of Jesus, of whom he declared himself.

to be merely the forerunner. It is impossible to realise what was the full significance of this baptism by John. The fact that Jesus came so

far to seek it, however, seems to show that He had a strong interest in John's work, and that it was as his

successor that He was willing to make His entry into public life. We make His entry into public life. do not know how long Jesus remained in the deserts of the lower Jordan.

but during this period occurred the Temptation, when He was 'driven of the Spirit into the wilderness.' After this period of strong spiritual

trial and, says St. Mark, 'after that John was delivered up,' i.e. thrown into prison by Herod, Jesus returned

to Galilee where His public ministry began. We hear of only one visit, and that an unsuccessful one, to His

native city of Nazareth. Capernaum, called in Matt. ix. 1 'His own city,' seems to have been the city to which He most frequently returned. His ministry may well be divided into two kinds: a public ministry of preaching to the people, and the private work of teaching His

disciples, to which He seems to have given Himself more and more ex-

clusively as the external opposition to His work increased. The public ministry was at first carried out by teaching in the synagogue, 'They

go into Capernaum; and straightway on the Sabbath day He entered into

the synagogue and taught '(Mark i. 21). This beginning of the preaching

ministry was followed by a tour through Galilee. So far as we can

say no one of the addresses delivered by Jesus in the synagogue has been reported, and certainly none is given in its setting. Many suggestions have been made, however, as to what parts of the reported addresses might

suitably have been given in this way. St. Luke tells us the text of the method of teaching of which Jesus

this aspect of the Lord's preaching words, which appear in all three of the synoptic gospels, 'I came not to call the righteous, but sinners.' On many occasions we read of Jesus attending feasts in the houses of people of this class, and in this, as in tween His method and that of the Baptist, 'John came neither eating nor drinking . . The Son of Man came eating and drinking.' When we But ships. throughout the Gospels we see the tender love and sympathy of Christ for all that is good in man, it is particularly easy at the present day to overlook what we may call the ascetic side. In this there was no shadow of a compromise: 'If any are, too, the stern words about those who commence and then give up the work they have undertaken, and the

address at Nazareth from the prophet Isaiah, 'The Spirit of the Lord is upon Me, because He anointed Me to preach good tidings to the poor: He hath sent Me to proclaim release to the captives, and recovering of sight to the blind, to set at liberty them that are bruised,' and he goes on to say that Jesus began His

on to say that beens began his address with the words, 'To-day hath this scripture been fulfilled in your ears' (Luke iv. 21). This agrees well with St. Mark's statement that 'Jesus came into Galilee, preaching the gospel of God, and saying, The time is fulfilled and the kingdom of God is at hand: repent ye and believe in the gospel '(Mark i. 14). Thus it may be gathered that the promised

Kingdom of God was the main theme of Christ's discourse, and that He spoke as bearing good news and not as proclaiming a judgment, though the note of warning ever appears. Two things were required in those

who heard Him-repentance and faith. Very particularly, too, was

Christ's message addressed to the lower classes of Palestine. No one No one casually reading the gospels can fail to be struck by the continual references to publicans and sinners, and

may well be summed up in His own

other ways, we see the contrast be-

consider the peculiar care with which St. John selects each of the miracles

he narrates, additional emphasis is thrown on the fact that the first miracle he chooses shows Christ at the

marriage in Cana of Galilee, hallowing the highest of human relation-

though everywhere

man will come after Me, let him take up his cross and follow Me.' There

great promises to those who would forsake everything they held dear to follow Him. The events in the last few weeks of His life show how necessary these warnings were. The

that ' with many such parables spake He the word unto them, as they were able to hear it; and without a parable spake He not unto them ' (iv. 34). Some difficulty may be caused by the apparent contradiction between this statement and the one which precedes it (iv. 11 ff.), when the disciples came to ask an explanation of the parable of the Sower. Here we read that Jesus said unto them. Unto you it is given to know the mysteries of the kingdom of God, but unto them that are without all things are done in parables: that seeing they may see, and not perceive; and hearing they may hear, and not understand, lest haply they should turn again and it should be forgiven them.' This statement seems to be a reading of the cause in the light of the after events, the anticipation of the result rather than the motive of the action. The idea of such a motive for parables is impossible in the light of the whole narrative. Large numbers of the parables of Jesus are collected in the synoptic gospels, and all are of a homely kind, likely to be appreciated by people of all classes. The writer of St. Matthew's Gospel, following his usual method of dividing his narrative into groups of events of a similar character, gives almost all the parables together in chap. xiii. In the other Gospels they appear to be arranged in a less studied manner. though, unfortunately, it is impossible to locate the actual occasions on which most of them were spoken. No less important, however, than our Lord's public preaching ministry, the apparent success of which, if we may judge from the parable of the Sower and the preceding discourse, was very slight, was the work of instructing those who had definitely chosen Him as their Master and who could say, 'Lord, we have left all and followed Thee.' In this connection it may not be irrelevant to notice that St. Mark begins his account of the St. Mark begins his account of the Galliean ministry with the calling of the first four disciples, Simon, Andrew, John, and James, and that hot till then does he go on to tell of the teaching at Capernaum. The importance of Christ's teaching work is shown, too, by the antithesis which is continually to the calling was connected with the easting which is continually to the calling was connected with the casting the casting was connected with the casting was conn the disciples and the St. Mark's Gospel do v

made use in His public preaching must probably have happened in a was the common Eastern one—by lesser degree on many occasions. On means of parables. St. Mark says the return of the apostles from the the return of the apostles from the teaching mission on which they had been sent, Jesus said, 'Come/ye yourselves into a desert place apart and rest awhile,' and the significant note is added, 'for there were many coming and going and they had no leisure so much as to eat.' As the opposition of the religious authorities became more and more decided. Jesus attempted to withdraw more and more from public life in order to devote Himself to this other work. It is probable that the excursion into Tyre and Sidon and the still more ryre and suon and the sin more noteworthy expedition to Cæsarea Philippi, which was the occasion of St. Peter's confession of Him as the Messiah, were prompted both by a desire to avoid the notice of His powerful enemies and also by the desire for quiet. The slow journey down to Jerusalem for the last Passaver was also engaged chiefty in inover was also engaged chiefly in instruction, chiefly on the subject of His rapidly approaching death, of which the disciples still seemed painfully ignorant. The depth of the tragedy of this ignorance, and the surest sign of their failure to rise as yet to the heights whither their Master called them, is shown well in Master caned them, is shown wen in St. Mark's vivid narrative. The disciples and Jesus were on their last journey to Jerusalem. The time of their preparation was almost over, and the Christ was still striving to impress the Christ was still striving to impress upon them the fact that He was going to death, 'and they were amazed.' Then, following immediately on a clear and explicit prophecy of the Crucifixion (x. 33 and 34), we read in the next verse how James and John, the sons of Zebedee, came asking for the posts of honour in the Messianic kingdom that they expected He was about to found, followed by our Lord's attempt once more to our Lord's attempt once more to teach them their lesson. Closely connected with our Lord's teaching work was His ministry of healing, and it is important to notice

once again how this comes into pro-

's account showed that it was piracle rather than the teaching thesis most clearly of first struck them and brought also the succession of attempts which Jesus makes to secure the requisite all amazed insomuch that they time and quiet for instructing His questioned amused insomuch that they disciples. One occasion is particularly What is this?

unclean spirits and they obey Him' (Mark i. 27). Almost immediately afterwards we read how this work of healing was carried on even more widely in the district round, when they had retired to Simon's house, At even, when the sun did set, they brought unto Him all that were sick and them that were possessed with devils. And all the city was gathered together at the door. And He healed many that were sick with divers diseases and cast out many devils' (i. 32-34). These are but a few of the numerous miracles recorded in the gospels, occupying quite as prominent purpose in St. Mark's Gospel as in the others. Often, as in the verses quoted above, we have a large number of miracles disposed of in a group. On other occasions we have a more or less complete account, when certain peculiar circumstances or some discourse attached to the miracle renders it more noteworthy. Thus we have the large class of miracles spoken of as casting out devils, where some emphasis seems generally to be laid upon the recognition of Jesus by the evil spirits, and His invariable command of silence. Thus in the first case, the casting out of the evil spirit from the man in the synagogue at Capernaum, we read that the devil, speaking through the man cried out, What have we to do with Thee, Thou Jesus of Nazareth? art Thou come to destroy us? I know Thee Who Thou art, the Holy One of God. And Jesus rebuked him saying, Hold thy peace, and come out of him.' Similarly, after the healings summarised in vv. 32-34 we read, He suffered not the devils to speak because they knew Him.' All these numerous miracles are closely connected with the main narrative, and it is hardly reasonable to try to explain them away as a late excrescence. The attack on the credibility of miracles has come during the last few centuries from many different quarters, and eminent men have always been found who were prepared to defend them. The question is still an important one even in the present century, and it may be well to quote the words of the late Dr. A. B. Bruce on the position of the N.T. miracles. This very distinguished biblical critic in his article Jesus' in the Engalogacia Biblica. Jesus 'in the Encyclopædia Biblica, after remarking on the distaste which many feel for the whole subject, says that, as a question of fact 'the healing ministry, judged by critical tests, stands on as firm historical ground as the best accredited parts of the teaching. There may quite possibly be methods of scientifically explaining the way in which Christ's healing | washings,

work was performed, and attempts may be made to show that Christ's powers were in this respect not beyond the limits of the purely human. Such researches are profitable but lie within the domain of the scientist and not that of the theo-Much of the difficulty in logian. accepting miracles, however, seems to lie in the pre-supposition that Jesus was not God. It was realised only during the last century that the pre-suppositions of the critical mind need examining no less than those of the orthodox,' and this particular pre-supposition is particularly apparent in criticism to-day. Of the many valuable works in defence of the miraculous that have appeared, there is none which treats the subject with such force and freshness as Mr. G. K. Chesterton's Orthodoxy (1909), which Dr. Figgis has described as a volume worth more than any dozen ordinary apologetic works. There is no doubt, however, as to the motive with which Christ's acts of healing were done. They show Him as tender and compassionate, the healer not only of spiritual but also of physical ills.

But it is now time to record briefly Christ's attitude towards the religious leaders of His time. It is almost entirely one of condemnation. The aim of these leaders was to secure a uniform observance of external rites, to secure the carrying out of the letter of the law even if the It is easy

point of

He did regarded. What they commanded was to be observed and done, but their actions were not to be imitated. Here, again, in the question of the observance of the law, they are blamed not so much for their care of minute details as because they hypocritically allowed this care to usurp the care of weightier matters. These things ought ye to have done and not to leave the other undone.

'These things ough's to harvasse, and not to leave the other undone.' Against one particular point in the Pharasaic formalism, the strict observance of the Sabbath day, Christ seems to have deliberately carried on a campaign, and it was His action in this respect that precipitated the conspiracy of the Pharisees and chief priests against Him. The summing up of Christ's teaching on this subject, the words 'The Sabbath was made,

essence of His whole creams. An regard to external observances. An equalty sweeping generalisation is that with reference to the many washings, 'there is nothing from

which proceed out of the man are those that defile the man ' (Mark vii. So the leaders of the religious world took council with the Herodians against Jesus, how they might put Him to death, and by the time of the last Passover, their preparations were completed and the end came. A week before this, Jesus entered Jeruin triumph, as all evangelists tell us, and thus, according to St. Matthew, a Messianic prophecy was fulfilled. The enthusiasm of the people on this occasion still further infuriated the religious leaders. and His immediate death was re-solved on. The week that followed solved on. The week that followed was crowded with incidents. The nights were spent at Bethany and each day the little party went in to Jerusalem. Many incidents are recorded, but some stand out above the rest. On the evening before the Passion occurs the Last Supper, the mystic feast of which the actions have been repeated by all Christian communities from that time till the present day in accordance with Christ's command to do this in remembrance of Him. Then follows the Agony in the Garden, and thus the Agony in the Garden, and thus begins the story of the Passion. This story is narrated at considerable length by each of the four evangelists, and there are certain notable differhis Master. place in h hurried to But He is t

to bear His own cross, and in this He is aided by Simon of Cyrene. At Golgotha He is crucified, bearing over Him the title King of the Jews. This is the main outline of the tragic of t story which must have been the por-tion of the life of Jesus of which records were earliest made. This death has changed the world. It is not the place here to enter into the slightest discussion of the great problem connected with the nature of the Atonement (a.v.), the understanding of which has proposed so con-

without the man, that going into of Christ can hardly in any sense ve him can defile him: but the things said to have ended with the Cruéi-Did we end the life of Christ fixion. at this point it would be a record of failure rather than of victory that we should have narrated, and the world would be left with no alternative but the most extreme pessimism. In a sense it would be true to call the earthly life of Jesus as only a reginning. St. Luke, for example, at the be-ginning of the Acts of the Apóstles, speaks of his former treatise as being concerned with all that Jesus began both to do and to teach until the time that He was taken up. In this sense, the story of the life of Christ is still continuing, as He still works in His Church. The Gospels tell us that on the third day from His Crucifixion, Jesus rose again from the dead, and that in this He is but the first-fruits of mankind. It was the gospel of the Resurrection that the apostles went forth preaching, as the Acts and the Epistles abundantly testify. So clear is this that hardly the most sceptical of critics has doubted that the disciples were themselves utterly convinced of the Lord's resurrection, whatever he may conceive the truth of the matter to have been. Further, we learn from the canonical scriptures that forty days after the Resurrection, having frequently appeared to His apostles and instructed them in 'the things pertaining to the kingdom of Heaven' He was in their sight received up into Heaven, where 'He

ind-work and centre of any to write the life of Christ. Dialessaron was the first

Dialessaron was the first to form a harmony of the 1 many such have been made since. Apart from such harmonies the first life of Christ is the Vila Christi of St. Bonaventura. Since that time lives of Christ have been written in all European languages. The best-known English Life is that of Dean Farrar (1874), which has been followed by many others.

Jesus College, Cambridge, lies apart.

Jesus College, Cambridge, lies apart from, and to the N.E. of, the majority slightest discussion of the great pro-blem connected with the nature of the Atonement (q.v.), the understand-ing of which has progressed so con-siderably in recent years. But it is necessary to point out that the work the college was 'The most blessed Virgin Mary, St. John the Evangelist, and the glorious Virgin Saint Radegund,' but the founder intended it to be known as J. C. He provided for a master and six fellows, but the foundation now consists of a master and sixteen fellows, with twenty scholar-ships or more. There are several other scholarships confined to the sons of the episcopalian clergy. Architecturally, Jesus is one of the most interesting colleges in Cambridge, for Alcock retained, and there still remains, a considerable part of the old buildings of the nunnery. The tower is retained, the bulk of the building is Early English, but there are Norman traces. The most famous name connected with the place is that of Cranmer. The college colours are red and black.

Jesus College, Oxford. This college has always had an interesting connection with Wales. Quebeth was its foundress in it of 1571, but Hugh ap Rice

native of Brecon, endowed original foundation was for a principal, eight fellows, and eight scholars. It now consists of a principal and not less than eight or more than fourteen fellows, and there are twentyfour foundation scholarships, besides others and exhibitions, mainly on the foundation of Edmund Meyricke, a native of Merionethshire, who entered the college in 1656, and was a fellow Not only his scholarships in 1662. but others are restricted to fellows born in Wales, or of Welsh parent-The college faces Turle Street; the front is a reconstruction of 1856. The chapel dates from 1621, the hall from about the same time, and the library from 1677. The college colours are green with white edges. Jesus Sirac, see Ecclesiasticus.

Jet, a kind of lignite or anthracite, which can be easily cut and carved, and takes a fine polish. It probably takes its name from Gasgas, in Lycia, where, according to Pliny, a similar substance was found. It has been used in Britain for ornaments from prehistoric times, necklaces, beads, buttons, etc., of the Bronze Age, having been discovered in various parts of the country, and Caius Julius Solinus (3rd century) alludes to the abundance of J. in Britain. Caedmon, too, refers to the J. It was probably obtained from the coast of Yorkshire and especially Whitby, where the finest quality is still found. It is also imported from Spain, but Spanish J. is generally less hard and lustrous than that found at Whitby. It is found, too, in the department of Aude in France, and in the Lias of Würtemberg, and is known in many localities of the Matthew of Paris, continuing the

U.S.A. It is chiefly used for mourning ornaments, but imitations occur in vulcanite and in glass.

Jeton, or Jetton, a round piece of metal or ivory, which was formerly used in card games for counting, as well as a pass to the gaming tables. Jetsam, see Flotsam.

Jeunesse Dorée, La, the gilded youth of a nation, that is to say, the rich, unmarried, fashionable young

Jever, an old tn. in the grand-duchy of Oldenburg, Germany, was formerly the capital of the Dutch principality of Friesland. Chief manufs. are woollen and leather goods; tanning and dyeing are also carried on.

Pop. 5787. Jevons, William Stanley (1835-82), English economist and theo-an. At fifteen he was sent to anlogian. Queen Eliza-in it

London to University College School.

He already believed that important
as a thinker were

im. his favourite subjects were chemistry and botany. He un-expectedly received the assayership to the new mint in Australia; he accepted the post because in financial He remained in Sydney for five years. In 1859 he again entered University College as a student, proceeding in course to the B.A. and M.A. degrees of the University of London. Not long after taking his M.A. degree, he was appointed tutor at Owen's College, Manchester. In 1866 he was elected professor of logic, and mental and moral philosophy, and Cobden professor of political economy there; in 1876 he exchanged the Owens professorship for the political economy chair in University College, London; in 1880, owing to ill-health, he resigned. He met his death whilst bathing at Hastings.

The Wandering, a legendary Jew, Jew who, for some insult offered to Christ at the time of His Passion, is doomed to wander eternally throughout the world. The story is of no antiquity and does not appear at all in the East, no reference being made to it even in the great work of Jean d'Outremeuse. The tradition varies considerably, and no two versions agree as to the name of the Jew. The chronicle of St. Albans Abbey for 1228 tells of the visit of an Armenian bishop who gave an account of the W. J. under the name of Kartaphilos. According to this version, he was a door-keeper of the Judgment Hall. and as Jesus passed out he struck Him saying, Go, Jesus, go on faster,

same chronicle, tells us that Karta-tinued throughout the country, and philos was baptised by Ananias under so dogged and resolute was the rethe name of Joseph, and henceforth, at the end of every hundred years, falls into a trance from which he wakes to find himself at the age of thirty, the age at which he was when he struck Jesus. Another legend calls the Jew Ahasuerus, a cobbler, while another calls him Ananias, and another Isaac Laquedem. Southey's Curse of Kehama does not follow any of the mediæval legends.

Jewel, John (1522-71), the Bishop of Salisbury, born at Berrynarbor, near Ilfracombe. He was educated at Barnstaple and Oxford, where he became a lecturer. He was one of the foremost churchmen of his age, and defended the English Church against Rome in his Apologia Ecclesia Anglicanæ, 1562. He also opposed the Puri-He spent some time abroad during Mary's reign, but returned to England on the accession of Elizabeth and was made Bishop of Salisbury.

Jewellery (Old Fr. jouel; It. gioja, joy; Lat. gaudia), a term applied primarily to articles of personal decoration, made of gems or precious stones, and ornaments in gold and silver, as well as to the articles manufactured. There is generally a good deal of confusion between the words gem and jewel; the former properly belongs, however, to engraved stones (see GEM). As a purely decorative or ornamental adjunct to the person, J. has at all times been in use, and in the days prior to banking and money. lending, one of the most convenient methods of storing wealth was the accumulation of J. Gold is the first metal mentioned in history, and there are numerous finds of gold J. of prehistoric times. Then there are many examples of the jewels of the ancient Egyptians and Greeks. The J. of India brings down to modern times traditions of the earliest skilled As recraftsmanship of the world. As regards the production of J. as a modern art, there are important centres in all the larger cities of Europe, viz. Paris, Vienna, London, and Birmingham. The district of and Birminghain. The district of Clerkenwell in London is the centre of the higher-class J. trade in the United Kingdom. See Chaffer's His-lory of English Goldsniths; Decle, Historique de la Bijouteric Française; Emmanuel, Diamonds and Precious Stones, etc.

Jews, the early history of the Hebrews has been given in the article ISRAEL, and here a sketch will be given of the history of the Jewish race

so dogged and resolute was the re-sistance that it was only by massacre that quiet was obtained. The most violent methods were used by the Romans to reduce the J., and all J. throughout the Empire shared in the oppression. The discontent and desperation of the J. of Judea, increased by the fact that Hadrian contemplated the establishment of a pagan city on the site of Jerusalem, led to a general revolt in 132 under Bar Coziba, or Bar Cochba, who was sup-ported by the Rabbi Akiba. He kept up the standard of revolt for three years. At the end of this last revolt, Jerusalem was turned into a Roman colony under the name of Ælia Capitolina, and no J. was allowed even in its vicinity. The name of Jerusalem was henceforth to be obliterated from the mind of man. One of the most Roman wars, and of the Judeo-Roman wars, and of the subsequent destruction of the Jewish national centre, was the wide dispersion of that people, which has remained to this day one of its distinguishing this day one of its distinguishing features. The Babylonian J. had formed a separate community since the time of the Exile, and had spread far and wide over the domains of the Persian empire. These J. were at Persian empire. These J. were at first of little importance from the religious point of view, being content to have all their difficulties settled for them by the council at Jerusalem, but their intellectual status was raised by the arrival of many learned rabbis at the time of the Dispersion. The Baby-lonian J. were headed by the 'Prince of the Captivity,' who claimed de-scent from the house of David, and lived in semi-regal state. It is problived in semi-regal state. It is probable that large numbers of J. had also settled in Egypt, and their commercial instinct had led to their congregating particularly at Alexandria. Here had arisen the philosophic and Hellenic Judaism of Philo. The J. had also travelled far and wide throughout the West, and everywhere they had met with a considerable measure of toleration. After the fall of Jerusalem, the J. were, for a time, left stunned under the catastrophe. The re-establishment and rally of Judalsm is due largely to Rabban Jochanan ben Laccai, successor to Hillel, who, having escaped from the besieged city, obtained permission from the Emperor Vespasian to make Jamnia (Jabneh) his new centre. This place then became the seat of a great rabbinical academy, and of the reconstructed Sanhedrin. Here the study and development of the Torah from the fall of Jerusalem in 70 A.D. study and development of the Torah until the present day. The fall of received a fresh impetus, and the Jerusalem did not mean that Judma canon of Jewish sacred scriptures was reduced. Guerilla warfare con-was finally settled by Rubbi Akiba.

Jewish people was the president of the Sanhedrin at Jamnia. The great product during the first two hundred years of Jewish scholarship is the Mishnah, a collection of the results of the study of the Torah in Palestine and Babylonia. This was incorporated three hundred years later in the Talmud (q.v.), still held in the greatest veneration by J. of the traditional school. It is sad to record that a period of oppression began for Judaism with the accession of Constantine, though at first the statutes directed against them aimed more at restriction than at persecution. After the division of the empire, the J. in Western Europe were deprived of the privileges granted them by previous emperors, and the canons of the Church councils of the period threw much light on the way in which they were regarded. They had a favourable period, however, under the Carlovingians. Meanwhile the Babylonian J. were developing steadily. and showed much intellectual activity. In 614, when Jerusalem fell into the hands of the Persians, the J. entered the city with the conquerors; but their triumph was short-lived. Everywhere, however, both in East and West we find them most active in commerce, engaged everywhere in ministering to the needs and luxu-ries of civilisation. The period from about 700 to 1100, though one of growing persecution, has been described as the golden age of Judaism, and, during this period, one particular band of J. stand out in great promi-nence. Tho J. of Spain were, during that period, the representatives of the world's greatest culture. Here they flourished under the favourable rule of Islam. The rise of the Hispano-Jewish colleges dates from the arrival at Cordova of Moses ben Enoch, who had been ransomed from slavery by his co-religionists. Aided by the munificence of Chasdai ibn Spaprut, the schools of Cordova rapidly became flourishing centres of letters and of Talmudic study. In all departments of learning J. now became prominent.

Menachem ben Saruk was an early Menachem ben Saruk was an early student of Hebrew grammar, who was soon superseded by Jonah ibn Janach, the great master of Hebrew philology, who died in 1050. Some of the most beautiful of Hebrew poetry was also produced at this time. The · foremost of the Payetanim or liturgical poets was Eleazar ben Kalir, whose poems have now a place in the service for certain holy days. But one of the greatest of Jewish poets was Solomon ibn Gebirol (1021-70), whose best-known poem. Kether Malchuth (The Crown of Kingdom), has been

For centuries the religious head of the incorporated into the liturgy for the eve of the Day of Atonement. Judah Halevi (c. 1086-c. 1140) has been described as the greatest Hebrew poet since the time of David, and his poems are remarkable for depth of emotion and beauty of expression. Solomon ibn Gebirol was less famous as a poet than as a philosopher, for he was the first to introduce the Greek philosophy (as interpreted by the Arabians) to the Christians of the middle ages. His Fons Vila is a systematisation of the Greek and Arabic philosophy, which formed later an important source of scholasticism. Mediæval Judaism culminates in the figure of the intellectual giant Moses Maimonides (1135-1204), born at Cordova. On the taking of that city he was compelled to accept the faith of Islam and wandered to Palestine, where, being a physician by profession, he became attendant on the famous Saladin. Not only was he master of medicine but also of philosophy. He was the formulator of Jewish dogmatism. In his Mishneh Torah he made a systematic whole from the unwieldy mass of Jewish traditional law. In the Moreh Nebuchim (Guide to the Perplexed) he gave an exposition of the philo-sophy of Judaism. This work, from its rationalistic bias, caused violent dissensions in the Jewish communities, and ultimately the opponents of Maimonides invoked the aid of the Inquisition to suppress his works. Though the Spanish schools stand supreme during this period, similar institutions not destitute of learned men are to be found in France and Germany. The Franco - German scholars did not attain to the polish and versatility, as well as the philosophical breadth of view, which distinguished their Spanish brothren, but they possessed in an abundant measure moral earnestness and deep piety.

But during all this period, while Judaism ha

ripest fruits c clouds had b

treated as obnoxious strangers and unbelievers, at least the J. in the Carlovingian empire, and even in England and Christian Spain, found some justice and occasional favour as a useful mercantile class in a state of society in which religion and arms were the only tolerable occupations. Regarded by the rulers as a very valuable source of revenue, even as an indispensable adjunct of the population, and competing with none of them, the J. not only enjoyed the protection of the authorities, but also largely the passive good-will of their neighbours. The crusades were more

and caused them to attack the Saracens of Europe rather than the Saracens of Asia, was felt in the different countries themselves. The J. had always been a separate community dwelling in the land, but not forming part of it, and this isolation led to the levelling of the most extravagant charges against them, which were eagerly believed by the credulous vulgar. Many of these charges, such as that of the slaughtering of children for ritual purposes, were, strangely enough, identical with those levelled against the Christians themselves during the first centuries of Christianity. Moreover, the wealth of the J. made them fit objects for pillage and spoliation. The J. were excluded from possession of the soil, and from every honourable profession or handicraft. They were thus driven to moneylending, and in this pursuit acquired a reputation for avarice and extortion only less than that of the sovereigns and nobles who made use of them. To England the J. came in large numbers with William the Conqueror, and settled in the large towns. In 1144

accusations continually recur in the years that follow, and the case of little St. Hugh of Lincoln, narrated by Chaucer in the Prioresses Tale, is well known. The most serious event in the history of Jewry in mediæval England was caused when a deputa-tion of leading J. appeared at Westminster for the coronation of Richard I. in 1189. They were attacked by the mob, and a report spread that the king had ordered a general massacre. A very good attempt to carry out this supposed order was made in London and many other towns. The mas-sacre was particularly great in York. Finally at the end of the 13th century a decree from the belongin . 1290 ãbo In Cer

was equally and even more unfavour-Only in Italy, Turkey, and Poland was any measure of toleration allowed them. In other countries they were perpetually subject to extortion peace that ally to have

time that time that politics. In this connection we can they might accumulate more material deal only with England. In 1723 the for plunder. It is hardly necessary to words 'On the true faith of a Chris-

instrumental than anything else in speak of Spain during the latter half changing the condition of the J. for of the middle ages. The atrocity the worse, accompanied, as they were, by wholesale massacres. The tury is a by-word. These persecutions in which had possessed the Crusaders Spain caused many of the Spanish J. to make an outward profession of Christianity, and if we may judge from the words of Torquemada, from grand inquisitor during the latter half of the 15th century, many of these 'Maranos' held high positions in the priesthood. Finally it was re-solved to expel all J. from the Spanish domains, and in 1492 some 200,000 Spanish J. left their homes and the graves of their forefathers. Some went to Portugal, some to Southern France and Italy. Others sought a refuge in Mohammedan Turkey, where they were warmly welcomed by the Sultan Bajazet II. During this period of oppression the learning of the previous age turned to mysticism and the intricacies of the Talmud. To the mystic belongs the Caballah, that strange medley of Jewish reand philosophy spiritual ligious quackery. To the same trend of thought may be ascribed the rise of many pseudo-Messiahs such as David Reubeni and Solomon Molcho (1540). More important still was the Turkish Jew, Sabbathai Zevi, who assumed the rôle of the Messiah in 1666, and ned by thousands of en-

The Reformation did not duce any change in the the Christian states to-Jewish subjects. But the

spread of the New Learning led to an intelligent interest being taken in the productions of Jewish scholars, and a landmark in the rise of tolerance is marked by the publication in 1706-11 of Jacob Christian Basnage's History and Religion of the Jews since Christ to the present day. The 17th century also saw the rise of the famous Benedict Spinoza (1632-77), one of the greatest men that Israel has produced. But centuries of oppression had done its work, and by the middle of the 18th century, when external affairs were about to take a turn for the better, the intellectual condition of the J. had sunk to a low ebb. Their religion still remained, but it had sunk to a mechanical routine in mean surroundings. As a whole, the J. remained a class of social parialis, petty traders, or artisans despised by all. But, during the years that have passed since then, a marvellous evolution has been seen. As the J. have become enfranchised, they have produced a host of men of distinction in all walks of life. Especially has this progress been seen in the field of politics. In this connection we can

tian' were removed from the Jewish | Edinburgh, and a Cottage Hospital oaths. In 1753 a Jewish Naturalisation Bill was passed, but such was its | Edinburgh School of Medicine for tion Bill was passed, but such was its unpopularity that it was repealed in the following year. In 1833 began a series of unsuccessful attempts to remove Jewish disabilities, the Bills Hemove Jawish disabilities, the Dinis being invariably thrown out by the House of Lords. A compromise, by which Baron de Rothschild, who had been elected for the city of London, was allowed to sit in parliament, was arrived at in 1858, and in 1860 the parliamentary oath for both Houses was permanently amended. Jewish problems at the present day are many, so many that it is impossible to discuss them here. They may easily be studied, however, in current literature, where they are now receiving free consideration along with other important social and religious problems of the day. See G. F. Abbott's isnat in Europe; M. Friedlander's
The Jewish Religion; P. Goodman's
The Synagogue and the Church; M.
Joseph's Judaism as Creed and Life;
C. G. Montefiore's Liberal Judaism;
and The Jewish Encyclopædia. See
ZIONIST MOVEMENT.

Jew's Ear, or Hirneola Auricula-Judæ, a fungus shaped somewhat like an ear. It is found chiefly on elders, and was given its name from a legend that Judas hanged himself

on an elder tree.

Jew's Harp, or Trump, a small musical instrument, consisting of an elastic vibrating steel tongue riveted at one end to a frame of brass or iron. The narrow free end is at right angles The instruto the vibrating piece. ment is held between the teeth, while the metal tongue is twitched by the forefinger. Sound is increased in intensity by the breath, and altered in pitch by the shape of the mouth's cavity. See Notes and Queries, Oct. cavity. See Notes and Queries, Oct. 23, 1897; Wheatstone, Quarterly Journal of Science, Literature, and Art, 1828; Grove, Dict. of Music, ii.

Jew'

a speci and in

an annual, growing to a height of from 12 to 18 ft., and yields a very valuable fibre.

Jew's Thorn, see Paliurus.

Jex-Blake, Sophia (1840-1912), born in Sussex, and was sister to Thomas Jex-Blake, D.D. She was mathematical tutor of Queen's College, London, from 1858-61, and in 1866 began to study medicine in Boston, U.S.A. She returned to England in 1868, and matriculated in the medical faculty of the University of Edinburgh in 1869. In 1874 she founded the London School of Medicine for Women, and in 1878 opened a Discountry of the London School of Medicine for Women, and in 1878 opened a Discountry of the Medicine for Women, and in 1878 opened a Discountry of the Medicine for pensary for Women and Children in sq. m. Pop. 617,000.

Women. She published: American Schools and Colleges: Medical Women; Care of Infants; and Puerperal Fever.

Ihansi

Jeypore, see Jamur.
Jezreel, a city of Canaan situated
on a spur of the Mt. Gilboa range, and 11 m. distant from Nazareth. was the well-known capital of the Israelite monarch Ahab; here it was that Ahab coveted Naboth's vineyard, and here the Queen Jezebel had Both king and Naboth murdered. queen suffered a shameful death as foretold by Elijah in consequence of their sin. The modern village Zer'in, built of stone, stands on a bare and rocky knoll, where the remains of ancient cisterns and old sarcophagi are still seen.

Jhabua: I. A state in the Bhopa-war Agency, Central India, has an area of 1336 sq. m. It is mountainous and little cultivated; opium is the most valuable product. Manganese is obtained in small quantities. Pop. 80,800. 2. A tn., cap. of above state, 80 m. W. of Indore, has important trade in opium. Pop. 3400.

Jhalawar, a state in S.E. Rajputana, India, has an area of 3043 sq. m. The chief crops are maize, cotton, and wheat. The exports are oil seeds, opium, brass ware, and cotton. The capital is Jhalrapatan, an ancient city of archæological interest. Pop. 345,000.

Jhang: 1. A dist. in the Multan div. of the Punjab, has an area of 4000 sq. m., nearly all of which is under cultivation. Owing to the con-struction of the Chenab and Jhelum canals the soil is well irrigated, and wheat, millet, oil seed, and maize are grown. Pop. 380,000. 2. A tn., forms a joint municipality with Maghiana, 2 m. away, and is the chief town of the above district. It manufs. brass ware, soap, and leather, and has considerable trade in grain.

24,382.

Jhansi, a city and dist. of British India in the United Provinces. The city is 60 m. distant from Gwalior, and is the central point of the Indian Midland Railway, from which four lines diverge to Agra, Cawnpore, Allahabad, and Bhopal. The district of J. is included in the country of British Bundelkhand, and is watered by the three important rivers, Pahúj, Betwa, and Dhasán. The fort and town of J. were taken by the British in 1853. The city was the scene of rebellion and massacre in the Mutiny of 1857, but was regained by the British in 1858. Area of district (including Lalitpur) 3630 184

the headquarters of the district of called the 'jib of jibs.' Jhelum, Punjab, India. It is the distributing centre for most of the trade of the district. Timber from Kashmir forests is collected here, and boat building is carried on. Pop. 14.950.

Jhelum, The, or Jehlam, the ancient Hydaspes, is one of the five rivers of the Punjab in India. It rises in the hills of the State of

Walur Lake, thenc clad Himalayas. from these mounts mula Pass, it again

Timmu.

Jhir

Jhering, Rudolf von (1818-92), a German jurist, born at Aurich in E. Friesland. He was educated at the University of Heidelberg, but also visited Göttingen and Berlin. In 1845 he was a professor at Basel, in 1840 at Rostock, in 1849 at Kiel, and in 1851 at Giessen. He set forth a fresh view of the Roman law, adapting the old as the basis for a new system of jurisprudence. He gained a great reputation, and in 1868 was offered the chair of Roman Law at Vienna, which he held until 1872, when he which he held until 1872, When he went to Göttingen as professor. His 6500 sq. m. It is very irregular and chief works are: Geist der römischen mountainous. The soil is very fertile, Rechts auf den verschiedenen Stufen the climate tropical, and the chief seiner Entwickelung, 1852-65; Der Kampf ums Recht, 1872 (English cocanuts, and fruits. It belongs to trans. 1884); Zweck im Recht, 1877-83: J. Weck im Recht, 1877-83: J. Weck im Recht, 1877-83: J. Weck im Recht, 1877-84: And Patani. Pop. 120,000. 1870

Punja The chief industries sq. m. manufs. of silver ornaments, leather, and pottery. 2. A tn., 75 m. N.W. of Delhi; contains many ancient temples and places of pilgrimage.

Jib (etymology uncertain, only found in English, probably connected with gibbel), the foremost sail of a ship. It is triangular in shape, and stretches from the outer end of the jib hoom, which is the account. jib-boom, which is the spar run out from the termination of the bowsprit, to the foretopmast-head. This is in the case of larger vessels; in smaller craft which have no jib-boom the J. extends from the bowsprit to the masthead. A 'flying J.' is a sail set in addition to the J., and lashed to the 'flying jib-boom,' which is an extension of the 'jib-boom' A 'twickled J' in a call control to the 'flying in the boom.'

Jhelum, a tn. on the Jhelum R.; is by large vessels, the outermost being

Jingo

Jibuti, Jibouti, or Diiboutil. French port on the Gulf of Aden, S. of Tajura Bay; has a good harbour, and takes much of the traffic for Abyssinia. A railway connects it with Harrar. Pop. 7000.

cient Hydaspes, is one of the five rivers of the Punjab in India. It Indians which inhabit the northern rises in the hills of the State of Kashmir, and is navigable for about to be very formidable, but are now 70 m. in that state the control of t hey make excellent basket

JEDDAR.

. or Gique, the name given About 250 m. fi
enters the plain o
after another 200 m. joins the 12. It has, however, been used by
Chenab, also one of the five rivers at Bach and Handel to finish a suite, and then simple time is sometimes found. The word is also used for the dance itself, and the idea of the jerking movement has given rise to many

applications of ' jig, Jigger, see Chigor. Jihun, see AMU DARIA.

Jijona, a tn. in the prov. of Alicante, Spain, is 18 m. N.W. of Alicante. A large quantity of fruit and honey is obtained from the district. It also manufs. shoes. Pop. 6900.

Jilolo, or Halmahera, an island of Malay Archipelago between Celebes and Ceram; has an area of 6500 sq. m. It is very irregular and mountainous. The soil is very fertile, the climate tropical, and the chief

Jimena, or Ximena, a ta. in Andalusia, Spain, is 14 m. from Jaca. Its trade is chiefly in the district pro-

duce, which includes grain, clives, and wine. Pop. 3000.

Jimena de la Frontera, a tn. in the prov. of Cadiz, Spain, is 20 m. N.W. of Gibraltar. It has a fortified Moorish castle, and manufs. leather and rugs. Pop. 8000.

Jingo and Jingoism. The derivation of Lives in weather but in its

of Jingo is uncertain, but in its modern application was borrowed from the lines of a music-hall song by W. Hunt, very popular in 1878, the chorus of which ran-

'We don't want to fight, but by Jingo! if we do,

We've got the ships, we've got the men, and got the money too.

The term J. was at that time used as a nickname for those who supin addition to the J. and flying J., extending from the end of the jibboom when the J. is half-way down from the the J. is half-way down from this the term has come to mean it. As many as six Js. may be carried or chauvinist policy, and Jingoism, therefore, denotes the policy of the Jingoes.

Jinn, or Djinn, the name of a class spirits in Arabian mythology. They were created 2000 years ago, and the greatest of them was Eblis who was formed out of smokeless fire. There are both good and bad J., and among the latter the five sons of Eblis may be mentioned, besides the Ghoul, which appears in human form, the Scalah, found in forests, the Delhan, living in islands, and the Shikk, shaped like a human being halved The J. assume various lengthwise. shapes, and live chiefly on the mountains of Káf, but their evil influence can be averted by talismans, etc.

Jinotega, a tn. in Nicaragua, Central America, 13 m. N.W. of Matagalpa, is the capital of Jinotega dept. Large quantities of coffee are grown in the

district. Pop. 12,500.

Jinotepe, a tn. in Nicaragua, Central America, cap. of the dept. Carazo, is 16 m. S.W. of Granada. It is the centre of a sugar-producing district. Pop. 7500.

Jiron, a tn. in the dept. of Santander, Colombia, 175 m. N.E. of Bogota, has important gold mines. N.E. of It has also trade in Panama hats and

tobacco. Pop. 11,000.

Jitomir, or Zhitomir, a tn. in Russia, on the Teterev, 80 m. S.W. of Kiev, is the capital of the government of Volhynia. It is the seat of a Greek archbishop, a Roman Catholic bishop, and is the centre of many Jewish organisations. It manufs. cloth, shoes, gloves, tobacco, and soap, and carries on trade in corn, hides, and · timber. Pop. 75,000 nearly one half Jews.

Jivaros, or Jeveros, a tribe of S. American Indians found in the forests of the Upper Maranon, Peru. are brave and warlike, faithful and noble, and though they have frequent tribal wars, always unite against a common enemy. They have fixed homes, and have a custom of mummifying human heads, probably for re-ligious purposes. They were reduced by the Spaniards after the conquest of Peru, but won back their liberty in 1599 by a general insurrection.

Jizak, a fortified tn. in the prov. of Syr Daria, Russian Turkestan, is 60 m. N.E. of Samarkand. It is on one of the main caravan routes. In 1868, it was a centre of activity, when Russia conquered Bokhara. 22,000.

Imudes, or Zhmudes, a name for the Lithuanians who dwell on the shores of the Baltic. The Russians and Poles designate them to distinguish them from the Lithuanians proper.

Joab (' Jehovah is a father '), the son of Zeruiah, was David's nephew and general. The first mention of him occurs in 2 Sam. ii. 12 ff. in connection with the campaign against Abner and Ishbaal, so it is uncertain whether he was with David during his early history. He was promoted to the position of general in the army after the capture of Zion, and we later find him as captain 'over all the host of Israel' (2 Sam. xx. 23), and on terms of great intimacy with the king. He occupies a prominent place in the re-bellion of Absalom and the revolt of Sheba. In 1 Kings i. 7 ff. we read how, at the end of David's life, J. took part in Adonijah's attempt to gain the crown and how he met his death on the accession of Solomon.

Joachim, Joseph (1831-1907), born Pressburg, virtuoso violinist, conductor and composer. As a boy prodigy he visited Vienna (1841) and Leipzig (1843), where his talent won

Mendelssohn's don (1844). At

became leader band at Weimar; four years later he was appointed to the court of Hanover, and for the next thirteen years continued as director of the royal concerts. From 1862 until his death he appeared regularly every year in London, chiefly at the St. James' Hall and the Crystal Palace, where he became known pre-eminently as the untiring apostle of Brahms. In 1868 he began his official career as a teacher at the Berlin Royal Academy of Arts, and in the following year

founded the Joachim quartet, famous for their wonderful playing of Brahms' As a composer chamber music. Joachim was influenced chiefly by Schumann; his finest work is his Op. 11, Violin Concerto in A major, which undoubtedly ranks as a master-

piece. in Bohemia, Carlsbad, gave or Joachims-

thaler, first minted here (1518). In the 16th century it was a mining centre, silver, nickel, and zinc were found. It

now carries on manufs. of gloves, paper, lace, and cigars. Pop. 7000. Joan (1328-85), the 'Fair Maid of Kent,' was the daughter of Edmund of Woodstock, Earl of Kent. She became Countess of Kent and Lady Wake of Liddell in her own right in 1352, and in 1361 married Edward the Black Prince, with whom she lived in Aquitaine from 1362 to 1371. She protected John of Gaunt and Henry Percy in 1377, when they were fleeing from the infuriated London populace, and in 1385 was successful in healing the breach between her son Richard II. and John of Gaunt.

Joan, Pope, a mythical long believed to have filled chair as John VIII. about

of an English missionary, and was educated at Cologne. She fell in love with a monk with whom she went to with a monk with whom she went to Athens in male attire, but returned to Rome on his death. Here she opened a school, and entered the priesthood, eventually being elected pope, but died during a papal pro-cession. This tale was first over-thrown by Blondel in 1647, who pub-lished an Eduireissement de la lished an Eclaircissement de la question, but was finally and com-pletely refuted by Döllinger in his Papstfabeln des Mittelalters, 1863

English trans. 1872).

Joan I. of Naples (1327-82), the daughter of Charles, Duke of Calabria, became queen in succession to her grandfather, King Robert, in 1343. She was first married to Andrew of Hungary, but when he was assassinated at Aversa in 1345, became the wife of Philip, Prince of Taranto. She took refuge in Provence when an inquiry was made concerning the nurder of Andrew of Hungary, and purchased her pardon from Pope Clement VI. by selling to him the town of Avignon. She returned to Naples in 1362 and married James, King of Majorca, and later Otto of Brunswick, Prince of Taranto. She and no sone and so meda Lovic I had no sons and so made Louis I., Duke of Anjou, her heir, with the result that Charles, Duke of Durazzo, who regarded himself as the rightful future King of Naples, seized the city. J. was captured and executed at Aversa.

Joan II. of Naples (1370-1435), the daughter of Charles of Durazzo, King of Naples. She succeeded her brother Ladislas in 1414, and was at that time the widow of William of Austria. She next married Jacques de Bourbon, Count of La Marche, but at the same time chose Count Pandolfello as her lover. He was arrested and executed by her husband, she herself being condemned to religious seclusion. But when she regained her liberty she in her turn had Jacques imprisoned. Her whole reign was troublous, and on her death the throne passed to Alfonso of Aragon, in spite of her attempt to make Louis of Anjou her heir.

Sp la Hε

best works are at Valencia. All his subjects were religious, and are marked by a beauty of colour and minuteness of finish.

.... 754), a theologian, hymnone of the later Greek n at Damascus. He was a was said to have been the daughter member of a Christian family of disof an English missionary, and was tinction and was educated by the educated at Cologne. She fell in love Italian monk Cosmas. He defended the worship of images in a controversy with Leo the Isaurian, but spent his later years in the monastery of Santa Saba, near Jerusalem. Here he wrote his hymns and other works, which inclu Christian TheoJacobite and disputa-

and applications against superstitions; homilies; Barlaam and Joasaph, a disguised version of the life of Buddhn; Fons Scientiæ; and De Imaginibus, But he is best remembered by his hymns, some of which have been translated into English by Neale. The first good edition of his works was that of Le Quien, 1712; this was reprinted in

Joan of Arc (Fr. Jeanne d'Arc), (1412-31), the Maid of Orleans, born in the vil. of Domrémy near Vaucouleurs, on the borders of Champagne, on Jan. 6, of humble parentage. Her extraordinary character and conduct make her one of the most striking figures in history. From her earliest years, she was imbued with an ardent rears, sne was imoued with an ardent faith and love of religion, and her enthusiasm and habits of solitary meditation explain her visions and the angelic voices she professed to hear. She loved to be alone and brooded in her waking dreams over the legends of the saints, until they became to her real personalities. became to her real personalities. Gradually there came to grow up in her heart the conviction that she had been chosen by God to do a special work of deliverance for her country. She asserted she was commanded by a vision to conduct Charles VI., King of France, to Rheims, to be crowned in 1429, and presented herself before the governor of Vaucouleurs. She was examined by the most intelligent men and counsellors, and at length was given permission to hasten to the deliverance of Orleans, D'Aulon being appointed her constant attendant and brother-in-arms. She donned male dress and a suit of white armour, and mounted on a black charger, put herself at the head of an army of 6000 men, and advanced to aid Dunois in the siege of Orleans. She entered the city in April 1429, and forced the English to raise the siege and retreat after fourteen days' fighting, and Charles entered Rheims and was crowned in July of the same year. Enemies soon-multiplied around her, and she was at bjects were religious, and are arked by a beauty of colour and inuteness of finish.

Joannes Damascenus, or Chrysor-heretic, and finally burned at the

of France, and Life by Mark Twain.
Joash, or Jeboash: I. The son of
Ahaziah and King of Judah. On
Ahaziah's death the throne was usurped by his wife Athaliah, attempted to exterminate all princes of the house of David. who the But was hidden in the Temple by Jehoiada, the high-priest, who later placed him on the throne at the age of seven and slew Athaliah. J. at first ruled well, and did much to restore the Temple, but later relapsed into the Temple, but later relapsed muche Baal-worship of his step-mother, Athaliah. He met his death at the hands of an assassin. 2. The son of Jehoahaz, King of Israel, third in the dynasty of Jehu. By three great victories over Ben-hadad, foretold by Elisha, he regained the lands which Hazael had conquered. Provoked by Amaziah's taunts, he then engaged in Amaziah's taunts, he then engaged in war with Judah, and reduced it to dependence on Israel. He died about

Job, Book of (Hebrew 'Iyyōb), one of the most remarkable books of the O.T., belonging to the section known as the Hagiographa. The book in its present form divides naturally into five parts: (1) The introduction (chs. i. and ii.) first shows us Job as a prosperous Edomite Emir, whose pros-perity is equalled by his godliness and uprightness. At a council in Heaven we hear Jehovah express his approval of Job and also how the Adversary is allowed to torment him in order that his perfect righteousness may be made manifest. In spite of the persuasions of his wife, Job maintains his integrity, but on the arrival of three neighbouring Emirs, his friends, to condole with him, he breaks into a passionate lamentation. (2) The discussion between Job and his three friends, Bildad, Zophar, and Eliphaz (chs. iii.xxxiii.). This contains three cycles of dialogues, each dialogue consisting of three speeches by Job in answer to speeches by each of the three friends in turn. In the last cycle, however, Zophar's silence shows that Job has ended the discussion. The view ad-vanced by Job's friends is that suffering is inevitably and invariably the result of sin, and that Job's case cannot be an exception. Job, in the consciousness of his innocence, is there-fore almost driven to deny the justice of God. He is, however, saved from this, and ends by concluding that sin and suffering in the individual are not necessarily connected, and by adjur-

stake. See Andrew Lang, The Maid abhorrence of Job's utterance against God, and lays stress on the disciplinary value of sin, a point which had already been slightly noticed by the three friends. (4) The reply of Jehovah out of the tempest (chs. xxxviii.-It is a series of marvellous poetic pictures of the mysteries of the universe, so presented as to humble Job, and draw from him a confession of his utter ignorance and worthlessness before his Creator. (5) The con-clusion (ch. xlii.) tells how, having thus humbled himself, Job is restored to double the prosperity he had enjoyed before. The problem with which the B. of J. deals is that greatest of all problems, the mystery of suffering, which must have en-grossed the attention of the Jews in the early post-exilic period to which this work must be referred. The text is, unfortunately, in a very corrupt condition, but there is a fairly regular sequence of thought. The Elihu passages are a later interpolation. There is no reason to believe that the story is historical, but it is probably founded upon a traditional legend. It doubtless owes, much, however, to the poetic genius of its compiler. A vast amount of literature has grown up around it, and it is only possible to mention a few of the critics that have dealt with the subject. See Davidson's Job (Camb. Bible tor Schools, 1884), and works by Cheyne (1897), Ley (1899), Beer (1895-98), Budde (1896), and Duhm (1897). Jobber, a professional dealer on the

Stock Exchange whose business it is to 'make a market 'for a special line of securities. He is precluded by the Rules of the Stock Exchange from acting as a broker, but can make bargains direct with members of the public provided he does not do so in the House. He can buy securities with the intention of taking delivery. and can sell with the intention of delivering whether he has the shares or intends to obtain them subsequently. Generally speaking a J.'s business is to sell or buy immediately what he has bought or sold respectively. Js. quote securities at two prices, the higher at which they will sell, the lower at which they will buy. The difference is called the 'turn of the market.' When there is a free market, i.e. where the securities are being freely bought and sold, the J. contents himself with a smaller turn,' or closer quotation, because he knows he will have ample opportunities of getting his profits by converse bargains. Members may not ing God to reveal the reason why he is thus afflicted. (3) Introduces the speeches of a fresh speaker (chs. xxiv.xxxvii.), a young man named Ellhu, who had heard the preceding discourses. He expresses his utter in which capacity they intend to act. Sce Stutfield's Rules of the Stock Exchange; Schwabe and Branson, On the Law of the Stock Exchange. Joh's Tears, a popular name of the

nown techni-The fruit re-

grass occurs

in India.

in India.
Jocelin, or Joscelin (fl. 1200), a Cistercian monk, was the author of The Life and Miracles of Saint Wallen of Melrose; A Life of David, King of Scotland; and A Life of Saint Kentigern; A Latin Narrative of the Life and Miracles of St. Patrick. This work was first printed in 1624, and a Evolish region by F. I. Smit was an English version by E. L. Swift was published at Dublin in 1809.

Jocelin de Brakelonde (d. c. 1213). a Benedictine monk who flourished at the end of the 12th century. was a native of Bury St. Edmunds. and became a member of the convent in 1173. He wrote a chronicle of the abbey from 1173-1202, in which he gives a minute account of the Abbot Samson and of his reforms, as well as of the monastic life of the time. J.'s style is clear and pleasing, and it was his life-like picture of Samson which inspired Carlyle to write his essay on the abbot in Past and Present.

Jockey Club, see HORSE-RACING. Jockey Club Stakes. see RACE

MEETINGS

Jode, Pieter de (1570-1634), the Elder, an engraver, born at Antwerp. He studied at first under Hendrik Goltzius, but afterwards went to Italy and engraved several plates from the works of the great masters. In 1601 he returned to Antwerp and won great distinction by producing various prints after the principal Flemish painters.

Jode. Pieter

Jode, Pieter de (1606-74), the Younger, the son of the above, was taught by his father, whom he sur-passed in taste and facility. His best works are his portraits, several of which he engraved after Van Dyck. Jodelle, Etienne (1532-73), a French

in 1552. This was represented before the court, J. himself playing the starting-point of French classical tragedy. He also wrote two other plays, Engène, a comedy, and Dido, a tragedy which follows Virgil's Jodeln, or Jodel poet, born in Paris. He aimed at substituting classical drama for the

of singing which consists in changing from the chest voice to the falsetto in harmonic progressions. It is much practised by the Tyrolese and Swiss in singing their national melodies.

Jodhpur, or Marwar (the region of death): 1. The largest state of Rajputana, British India, has an area of 35,000 sq. m. It is generally sterile and covered with sandhills. The Aravalli Hills form the E. boundary. The Luni is the only important river. There are a few marshes which dry up in the hot weather and yield crops of wheat and grain, and at Sambhar is a famous salt lake. Marble is ob-tained from quarries at Makrana. The chief exports are salt, hides, marble, brass and lacquer ware, and cotton. Pop. 2,057,553. 2. A tn., cap. of above state, 98 m. W. of Ajmere, contains a magnificent fort on a rock 400 ft. above the surrounding plain, guarding the Maharajah's palace. manufs, are brass and iron ware,

and cotton. Pop. 60,437.

Joel, the second of the twelve minor prophets, is spoken of in the heading to his book as the son of Pethuel, or, as many important MSS. read, of Bethuel. His prophecies contain no clear references to contemporaneous events, nor are the sins for which he rebukes the Jews sufficiently specific to give any clue to his date. Hence there has been, and is, wide difference of opinion as to the time at The view now which he wrote. generally held is that he prophesied in the reign of Joash, King of Judah, though certain important critics hold that he was post-exilic. The Book of Joel consists of three prophecies, all closely connected together. The first two chapters tell of a great plague of locusts which had afflicted the land. Many have taken this figuratively as alluding to the armics of Assyria. Then comes the prophecy of the out-pouring of the Holy Ghost (ii. 28), which is followed by the great judgwhich is followed by the great hug-ment of Jehovah over the enemies of Judæa in the valley of Jehoshaphat. See Commentaries by Credner, 1831; Wünsche, 1872; Grätz, 1873, and Merx's great work on the subject, Dic Prophetie des Joels, 1879.

Josuf, a tn. in the arron. of Briey,

Johannesburg, the chief tn. and mining centre of the Transvaal, S. Africa, Heidelberg dist., 30 m. S.S.W. of Pretoria. Founded by the Uitlanders, 1886, about 5500 ft. above sealevel, it grew quickly through its position among the Witwatersrand gold-fleids. There are now railway connections with Pretoria, Cape Town, Durban, Port Elizabeth, and Second and Third. other parts. The water supply is jority of critics, inc other parts. The water supply is rather uncertain, and the drought of 1889 led to severe famine. The climate is healthy, but the sanitary conditions are poor, and combined with the winter dust-storms, cause fevers and pneumonia. There are fine government offices and buildings, including the Stock Exchange and Transvaal University College. It was occupied by the British under Lord Roberts in 1900, and the Boer fortress is now dismantled. and tobacco are manufactured, and printing, brewing, stock-rearing, and foundry work carried on. Pop. 120.411.

Johanngeorgenstadt, atn. of Saxony, Germany. It is situated about 15 m. N.N.W. of Karlsbad, and possesses iron and bismuth mines. Pop. 6230.

Johannisberg, a vil. of the Rheingau, Germany, near the R. Rhine. It is famous on account of its castle and vineyards, the products of the latter being used to make the wellknown Johannisberger wines.

about 1300.

John, Saint, the Apostle, was the son of Zebedee, and the brother of James. The narrative of the call of James and John, who with St. Peter form the inner circle of the apostolic band, is narrated in all three synoptic gospels. St. J. is also generally identi-fied (1) with the companion of St. Andrew mentioned in the Fourth Andrew mentioned in the Foundation of Gospel who, from being a disciple of John the Baptist, became a follower of Jesus; (2) with the 'other disciple,' spoken of also as 'the disciple whom Jesus loved' mentioned in the Fourth Gospel. St. J. took part in many in-cidents mentioned in the synoptic gospels, but three stand out prominently as throwing light on his character, viz., the request of the brothers (Mark x. 35-41), the rebuke given to the man casting out devils in the name of Jesus (Mark ix. 38), and the request that fire should be called down from heaven to destroy the Samaritan village (Lukeix. 54). St. J. appears in the early chapters of the Acts, chiefly as the companion of St. Peter, while he is spoken of in Gal. ii. 9 as one of the Ship of the Acts of the Ship of the the pillars of the church at Jerusalem. Tradition from the time of Irenæus (c. 175) asserts that he died of old age, though this has been questioned on the ground that Georgious Hamartolos (9th century) says on the authority of Papias, whose works are now lost, that he suffered martyrdom from the Jews.

John, Epistles of, three canonical epistles of which the authorship is generally ascribed to the Apostle John. It is necessary, however, to consider Great abstract conceptions are pre-the First Epistle apart from the sented in rapid succession: life, light,

The great majority of critics, including Eichhorn, Credner, Lücke, Ewald, and Huther, are agreed that the writer of the Fourth C First E

ACCORD ' critical

further probable that the Epistle was written after the Gospel. The aim of the Epistle is primarily to build up the writer's 'children' in the true Christian life, but to do this he has to be polemical to some extent. There has been much discussion as to what enemies his words are directed against but they may be classed generally as Gnostics, whose errors of life and conduct were as serious dangers to the flock as were their heretical doctrines. It is an ancient tradition that the Epistle was directed partially against Cerinthus. The language of all the epistles shows clearly that they are not 'general,' but are addressed to a particular church or group of churches whose members were well-known to the writer. This is particularly so in the case of the First Epistle. The question of the authorship of the two latter Epistles is more difficult. Their authenticity was much disputed before the formation of the canon, and there is no agreement as to their author. Eusebius and Jerome ascribe them to John the Presbyter. It is now generally agreed that the 'lady' to whom the Second Epistle is addressed stands for the Church itself. See Com-mentaries by Plummer, Westcott, mentaries by Plummer, Westcott, and especially Brooke's 'Johannine Epistles' in the International Critical Commentary, 1912. John, The Gospel According to, now

more usually termed the Fourth Gospel, stands in striking contrast to the three canonical gospels which precede it, and which are termed synoptic gospels as giving something of a synopsis of the life of the Saviour. The contrast is struck in the opening passage of the Fourth Gospel. The synoptists, except St. Mark, have commenced with elaborate genea-logies which trace the earthly ancestry of the Messias. St. Mark com-mences immediately with the preface to our Lord's ministry. It has often been remarked, though, how St. John's Gospel begins with the same words as the Book of Genesis—'In the beginning.' Thus his Gospel opens with an elaborate philosophic and metaphysical statement as to the dernal life of the incarnate Word. The contract is not become a support of the statement of the contract is not become a support of the contract is not because it is not become a support of the contract is not because it is not contrast is not lessened as one pro-ceeds. Everywhere the abstract takes precedence of the concrete. In the words of Dr. Armitage Robinson, Great abstract conceptions are prewitness, flesh, glory, grace, truth. Each of these in turn is set in some relation to the Word who was in the beginning with God.' The tone of the Fourth Gospel is throughout rather that of a dogmatic treatise than a biographical sketch. It is important to notice, moreover, that throughout

in connection with John the Baptist. Therefore, the most vital points in the actual history of Jesus are here omitted; perhaps the most striking omissions being the Baptism and the institution of the Eucharist. Finally, it may be said that St. John's Gospel is concerned primarily with the spiritual and the eternal. The earthly life of Christ is considered not as an isolated event but in its connection with his life as God and with the whole of human experience. The incidents narrated are chosen solely for the doctrines that can be drawn from them, and Christ's words are not given as spoken, but as matured and interpreted in the mind of the writer. The question of the authorship of St. John's Gospel was a problem of the early Church, and it has also been a most important critical problem dur-ing the last century. Modern criticism now shows a tendency to return to the traditional view and ascribe it to St. John the Apostle, or possibly to John the Presbyter spoken of by Papias. The extreme anti-traditional view of the Tübingen school made the author a Gentile Christian, and placed the work in the middle of the 2nd century, Baur suggests 160-170 A.D., Pfleiderer 140 A.D., Keim 130 A.D. Dr. Harnack, however, in his recently published Chronology of Early Christian Literature places it between 80 and 110 A.D. According to this chronology, the date presents no obstacle to the authorship by St. John the Apostle, and much internal evidence is adduced in support of the traditional view that it was written by St. John the Apostle in his old age. traditional view well explains the peculiar characteristics of the Gospel. and the conditions under which he would have written are thus excel- time. lently expressed by Dr. Armitage Robinson: 'The old disciple needs no documents to compile as others might compile a laboured history. The whole is present in his memory, shaped by the years c experie 9779

the Cl knew Him in Galilee or Jerusalem half a century before. He knows who and what He is, as he hardly guessed And the fuller knowledge has

events as none knew it, save the Master, at the time. He cannot speak or write as if he were a young man, wondering from day to day whether this were the Christ. He cannot even speak as Peter may have spoken to Mark some thirty years before, when Jerusalem still stood, and the end of an age had not come. He can no longer sever between the fact and the truth revealed by the fact: interpre-tation is blended with event. He knows that he has the mind of Christ. He will say what he now sees in the light (that suppo: John the Jews is not a serious objection this view, for its authenticity is discredited by its late appearance, by

son's Study of the Gospels, 1906; F. C. Burkitt's Gospel History and its Transmission; Westcott's Gospel of St. John, 1882, also works by Plummer (1882), Sadler (1883), etc.

John, St., of Nepomuk (c. 1330-93), the patron saint of Bohemia, a native of Nepomuk, or Pomuk, near Pilsen. Educated at the University of Prague he soon entered the church, and after a time became confessor to Sophia, the wife of Wenceslaus IV. When he refused to divulge to her husband some secret he had heard from the queen in the confessional, he was tortured, and finally flung into the His canonisation dates from 1729.

John, the name of twenty-three

popes:

John I. (523-26), a native of Tus-cany, succeeded Hormisdas and was a friend of Boethius. Sent to Constantinople by Theodoric to obtain tolera-tion for Arians, but on his return was imprisoned by the king who was dissatisfied with the mission. Died in captivity

John II. (Mercurius) (532-35), a native of Rome and succeeded Boni-

face II.

John IV. (640-42), a native of Dalmatia, succeeded Severinus. Noted for his zeal and orthodoxy, and con-demued the Monothelite dectrine. John F. (685-86), a native of An-tioch, successor to Benedict II. The

first of several popes of Eastern

John VI. (701-5), of Greek birth, succeeded Sergius I. Appealed to in the conflict between St. Wilfrid of York and the see of Canterbury, revealed the inward significance of decided in the favour of the former.

John VIII. (872-82), a native of Rome, succeeded Adrian II. Saracens ravaged Rome during his pontificate. He supported Charles the Bold's claim to the empire, and crowned him in 875. See De Montour, Histoire des souverains Pontifes.

John IX. (898-900), a Benedictine, succeeded Theodore II. He accomplished little, and his position was

very insecure.

John X. (914-28), a native of Romagna, succeeded Lando. Placed himself at the head of an army and drove Saracens from Italy. Said to

have been murdered.

John XI. (931-36), elected while under age, and governed through influence of his mother, Marozia.

John XII. (Octavian) (955-64), suc-

ceeded Agapetus II. Crowned Otho I., Emperor of Germany and King of Italy.

John XIII. (965-72), a native of Rome, crowned Otho II. as emperor. John XIV. (938-84), a native of Pavia, succeeded Benedict VII. De-posed by the antipope, Boniace VII., thrown into prison and said to have

been poisoned. John XV. (985), elected successor John XIV., but died before his to John

consecration.

John XVI. (986), a native of Rome. set up by Crescentius, a patrician Overthrown by the emperor and treated with cruelty.

John XVII., a pope for a few

months in 1003.

John XVIII. (1003-9), when he resigned his office and entered a

John XX. (1276-77), a native of

Spain, and a man of great learning, often called John XXI.

John XXI., see John XX.

John XXII. (1316-34), a native of Cahors, France. Endeavoured to propagate Christianity in distant lands. Important in German history as taking active part in disputes of Emperors Louis of Bavaria and Frederick of Austria.

John XXIII. (1410-15), succeeded Alexander V., and his title was disputed by Popes Benedict XIII. and Gregory II. A man of depraved morals, and committed many heinous

offences. Finally deposed.

John (1199-1216), King of England,
probably born at Oxford on Dec. 24, 1166, was the youngest son of Henry II. and Eleanor of Aquitaine, nicknamed John Lackland. In 1185 he was sent as governor to Ircland, but was soon recalled on account of his way and Sweden (from 1483), was insolence to the Irish chiefs. J.'s occupied with wars and rebellions

John VII. (705-7), a native of coalition with his brother Richard Greece, successor to the foregoing. and Philip of France in 1189, under circumstances of peculiar treachery, was regarded as Henry II.'s deathblow. He was no truer to his brother: during Richard's absence in the Holy Land he attempted to usurp the crown and joined Philip of France to oppose Richard's release. In 1199 J. became king, and one of his first acts is supposed to have been the murder of Arthur, the son of his elder brother, Geoffrey. The death of his able mother in 1204 removed the last restraining influence on his crimes The death of his able 1204 removed the last restraining influence on his crimes and follies, and within a year Philip of France had annexed, with hardly any opposition, Normandy, Anjou, Maine, and Touraine. In 1205 began the great struggle between J. and the pope, Innocent III., over the election to the archbishopric of Canterbury, which led to the interdict of 1208, the deposition of 1211, and the excommunication of 1212. When the pope commanded Philip of France to invade England, J. submitted, agreed to hold his kingdom as a fief of the papacy, and to accept the pope's nominee, Stephen Langton, as archbishop. But his tyranny at home, coupled with the defeat of his forces at Bouvines (1214) by Philip, and the loss of Poitou stirred the barons to revolt, and led by Stephen Langton, they forced the king to sign Magna Chartaat Runnymede (June 15, 1215). But J. had no intention of keeping his promises, and induced the pope to annul the charter. The barons, as a last resort, appealed to Philip of France, and the Dauphin Louis had landed in England when J. suddenly died at Newark. He married (1) monastery. died at Newark. He married (1)

John XIX. (1024-33), a native of Hawisa of Gloucester; (2) Isabella of
Rome, succeeded Benedict VIII.

> surnamed 'the Good,' succeeded his father, Philip VI. He roused a storm of righteous indignation by his arbitrary execution of Robert, Constable of France, and then by guileful means entrapped his son-in-law, Charles of Navarre, cast him into prison in Château Gaillard, and put to death his associate in intrigue, the Count d'Harcourt. This had not a little to do with the invasion of France by Edward III. and the Black Prince. J. was taken prisoner at the battle of Poitiers in 1356, and eventually died in captivity, as his subjects were too reduced by devastations, famine. wars, and civil broils to pay the ransom.

> John II., or Hans (1481-1513), King of Denmark (from 1481) and of Nor

throughout his reign. Failure attended his expedition against the Ditmarshers in Southern Schleswig (1500). This disaster led to revolts in both Norway and Sweden, and though the former kingdom was pacified in 1508, the latter continued the struggle till within a year of John's death. Under Sten Sture, and later under Svante Sture, who had gained the support of the Hansa towns, the Swedes succeeded in throwing off the Danish yoke.

John, kings of Poland:

John I. (1492-1501), a brave soldier but a poor statesman. An insurrection in Moldavia frustrated his proiccted crusade against the Turks.

John II. (Casimir) (1648-68), was obliged by the Peace of Zborów (1649) to recognise Chmielnicki, the Cossack chieftain, as 'hetman' of the 'Zapo-rozhians' or Cossacks of the Dnieper. In 1655 Charles X. of Sweden overran Poland and invested the capital. In 1657 Casimir allied himself with the emperor Leopold of Austria to defeat the greedy and aggressive policy of Russia. Czarniecki drove out the Swedes, and the truce of Andrussowo (1667) concluded the war with Mus-

John III. (Sobieski) (1674-97), became commander-in-chief in 1668, having gained signal victories over the Cossacks and Tatars in the Ukraine. Having been heavily bribed by Louis XIV. to secure the election of Michael as king, he harassed the reign of the latter by continuous conspiracy, and drove him to sign a disgraceful peace with the Turks (1672). A splendid victory over the Ottoman foe in 1673 secured him the Polish throne. By the treaty of Zaravno (1676) he recovered most of Ukraine from the ignobly vanquished Ottomans. In 1683 he drove them from Vienna and after a brilliant victory forced them to retire from Hungary.

John, kings of Portugal:

John I. (1385-1433), called 'the
Great' and 'father of his country,' was the father of Henry the Naviga-tor. He proved a wise ruler, though his reign was darkened by continuous strife with John I. of Castile.

John II. (1481-95), called 'the Perfect,' curbed the power of his haughty noblemen, and drew up the celebrated treaty of Tordesillas with Castile (1494).

John III. (1521-57), bid fair to wreck the prosperity of Lisbon and his realm at large by being too partial to the whims of the clerical party.

Failure at- death his country had not yet re-

asserted its independence.

John V. (1706-50), allied himself with Austria in the war which closed with the treaty of Utrecht (1713), and afterwards became a tool in the

hands of the Church party.

John VI. (1816-26), was at first regent (1799-1816). He lived in Brazil, and when he returned home in 1822 he agreed to govern on constitutional lines.

of Austria (1545 - 78), soldier, the natural son of Emperor Charles V. He grew up a man of far-reaching ambitions, and the tragedy of his disappointed life may be traced to the petty jealousy of his half-brother Philip II. of Spain, who was always at pains to defeat these am-bitions. Philip had designed that he should become a monk, but Don John should become a monk, but Don John chose a soldier's career, and gained signal honours, first against Algerian pirates, then against the Moors of Granada (1570), and finally at the decisive naval battle of Lepanto (1571), when he was admiral of the combined fleets of Venice and Spain. Foiled in his point of a binghin. Foiled in his project of a kingship over Tunis, Don John was finally appointed viceroy of the Notherlands (1576). Here his hands were crippled (1575). Here als hands were crippied by lack of funds, men, or any show of support from Philip. His opponent was the redoubtable William the Silent. In 1577 he was forced to surrender and to recognise the 'Pacification of Ghent.' The following year, after a conspicuous victory over the Dutch patriots, he died of fewer and it is said, a broken heart.

John of Bohemia (1296-1346), the Blind, the son of Emperor Henry VII. In 1311 he was crowned King of In 1311 he was crowned King of Bohemia. Some years later, when the royal houses of Bavaria and Austria were measuring lances for the im-perial crown, J. secured the prize for the former by his victory at Mühldorf (1322). For two years (1333-35) he fought in Italy against the Ghibellines, and executed the met his death of and eventually met his death at Creey, where he was supporting his father-in-law, the French king. Blindness overtook him towards the

end of his life.

John of Gaunt (1340-99), Duke of Lancaster, fourth son of Edward III., born at Ghent in Flanders. In 1359 he married Blanche, heiress to the duchy of Lancaster and was himself created Duke of Lancaster in 1362. She died in 1369, and three years later J. of G. married Constance, daughter of Pedro the Cruel of Castile, John IV. (1640-56), became king and assumed the title of King of by popular consent after the rebellion of 1640 against Philip IV. of lish his claim against his rival, Henry Spain. His reign was occupied with of Trastamare, proved unsuccessful, a long struggle with Spain, and at his and in 1387 he renounced all claims in favour of his daughter Catherine. He was a very ambitious man and was greatly feared by the Commons and the young king, Richard II. while he opposed the greater part of the clergy by supporting John Wyellife. After his return from Strein in 1380 he specaded in rein. Spain in 1389, he succeeded in gaining the confidence of the king and tried to promote peace between him and the barons. In 1394 his wife Great Britain.

Scotiant and The expression is proverbially used for the most northerly point of Great Britain.

John's College, St., Cambridge, tounded in 1511 by the Lady Martin and the control of the most point of the control children by whom were legitimised in 1397, one of them, Henry Bolingbroke, Earl of Derby, becoming King Henry IV. See S. Armitage-Smith's John of Gaunt, 1905.

John, Sir William Goscombe 1860), English sculptor, an studied at art schools in Cardiff and London, and in Paris (1890-91), winning a gold medal at the Paris winning a gold medal at the Paris Exposition of 1900. He became R.A. (1909), and was knighted (1911). Among his chief works are statues of King Edward VII. (Cape Town), the seventh Duke of Devonshire (Eastbourne); Thomas Sutton, foun-der of Charterhouse (Goddalming); negographs to the Marquess of Salismemorials to the Marquess of Salisbury, Sir A. Sullivan; Cape Town Volunteers; 'A Boy at Play' (Tate Gallery); 'The Elf'; 'Morpheus and St. John the Baptist.'

John Dory, see DORY.

John of Leyden, properly Johann
Beuckels, or Borkhold (1509-36), a Dutch fanatic, was a tailor, who eventually settled down in Leydon as an innkeeper. A disciple of the Anabaptist, Matthias, he was sent on a mission to Münster (1533). His flery oratory soon gathered together goodly company of zealous converts, who became known as the 'saints.' This success led to a strange and almost unique episode. For a twelvemonth J. became King of Münster, assumed the royal purple, married several wives, dispensed justice in the market-place, and put his enemies to death. In 1535 the bishop re-

versities. His claims to high sc

ship rest on his knowledge of and Latin, natural philosophy, logy, mathematics, and Hel and Latin, natural philosophy, logy, mathematics, and Hebrew. For many years he was secretary to Becket, whom he staunchly supported in all his vicissitudes, and whose life (together with that of Anselm) he subsequently wrote. Henry II, employed him on several those whom death would overtake embassies and received from his within the coming year. hands the papal bull authorising his Johns Hopkins University, in Balti-

Great Britain.

John's College, St., Cambridge, founded in 1511 by the Lady Margaret Beautort. Her executors supervised its building, among them Fisher of Rochester. There Bishop Fisher of Rochester. There are four courts: the most easterly with its fine gateway dates from the Tudor period; the second contains a panelled master's gallery with fine mouldings (1598-1602). The so-called Bridge of Sighs connects the third court with the fourth, which is on the other side of the Cam. The endow-ment includes nine sizars, sixty scholars, and fifty-six fellows, besides master. Cecil, Lord Burghley, Roger Ascham, and Wordsworth

Roger Aschail, and wordsworm were students here.
John's College, St., Oxford, was founded in 1555 by Sir Thomas White alderman of London. There are two quadrangles. In the first court is incorporated part of St. Bernard's College (founded in 1437) which formerly occupied the site, and to which the fine gateway giving on to which the fine gateway giving on to St. Giles' Street also belongs. second was built by Archbishop Laud, who lies buried in the chapel together with the founder, and who in his life-time was very intimately associated with the college. This quadrangle, which is interesting by reason of the fusion of Classical and Perpendicular styles, overlooks the fine college gardens. Fifteen of the twenty-eight scholarships offered are reserved for Merchant Taylors' School. John's, Eve of St., or Midsummer

Eve (June 23), was celebrated with song and dance throughout Christencovered the city, and after exerciating tortures J. was executed.

John of Salisbury (d. 1180), a learned scholar, studied in Paris under scholar, studied in Paris under the Abelard (1136), and also attended oxford and certain Italian to high second statements. His claims to high second statements was an English custom to fetch pranches from a neighbouring wood oxford and certain statements.

VIII

more, Maryland, U.S.A. Together victory he became the 'champion of with a hospital of the same name the world'; feeling had run very high it was founded and endowed by a in America over the combat, and the Baltimore merchant, Johns Hopkins | defeat of the 'white man's hope,' as (1794-1873), who bequeathed for the purpose 7,000,000 dollars. It was opened in 1876 on a site in the com-It was mercial quarter of the town, but in 1902 its re-erection was designed and begun on a spacious and pleasant plot of ground in a northern suburb. This essentially modern university offers five curricula for the B.A. degree, but is especially distinguished

for its medical and graduate schools. Johnson, Andrew (1808-75), the seventeenth president of the United States, educated himself by reading, both when he was a tailor's apprentice and journeyman. From 1830 to 1834 he was mayor of Tennessec; for four vears between 1835 and 1841 he sat in the state House of Representatives, and later in the state Senate. Next he was elected to Congress, where he remained for ten years (1843-53), and finally to the national Senate (1857-62). From 1853 to 1857 he was governor of Tennessee. His policy was characterised by active sympathies with the working classes, sturdy opposition to all anti-Union measures and advocacy of protection of slavery. On the declaration of civil war, President Lincoln made him military governor of Tennessee, and after Lincoln's assassination he became president (1865-69). But the The trial

-1876), au Oriental scholar, learnt Arabic from an Arab in Italy and after visiting Athens and Constantinople, accepted the chair of Sanskrit, Bengali, and Telugu at Haileybury College (1824). A revised edition of his monumental Persian Dictionary appeared in 1852. Sanskrit students are indebted to his

Hitopadésa, 1840. Johnson, Sir George (1818-96), an cian to the hospital, and three years later physician extraordinary to the queen. He specialised in the diseases of the kidney, on which he wrote a book (1852), and he also published Lectures on Bright's Disease, 1873.

Jeffries had been called, caused great After J. had perdissatisfaction. formed on the music-halls in the States and in this country, an attempt was made to arrange a match with Wells in England, but the Home Secretary would not allow it to take place. Since then J. has done no fighting. The recent tragic suicide of his white wife revealed the acuteness

of the race question in America.

Johnson, Lionel (1867-1902), English man of letters, was a journalist in London. His best piece of literary criticism is to be found in his Art of Thomas Hardy (1894), and he also published two volumes of original

poems (1897 and 1899).

Johnson, Richard (1573-c.1659), a romance writer, was baptised in Lon-Bishop Hall speaks of the remarkable popularity of J.'s Famous Historie of the Seaven Champions of Christendom, 1596(!), and the author, stimulated by its great acceptance, wrote two other parts. He also published a satire entitled Looke on me, London, 1613, and Anglorum Lach-rime, a lament for Queen Elizabeth,

Johnson, Richard Mentor (1781-1850), the ninth vice-president of the United States, was admitted to the bar in 1800, and sat in Congress from adoption of his predecessor's lenient 1807 to 1819, and was for many years policy with regard to the rebellious a member of the Senate. In 1837 the southern states was misconstrued Democratic party and the Senate into deliberate disloyalty and he was elected him to the vice-presidency, which he retained in spite of bitter internal dissensions till 1841.

Johnson, Samuel (1709-84), an author, the son of a Lichfield bookseller, born on Sept. 18. A precocious boy, he was from early days a great reader, and a customer of his father's, struck by the lad's talents, sent J. in 1727 to Pembroke College, Oxford, where he distinguished himself by his classical erudition. After acting as an usher at Market Bosworth Grammar Johnson, Sir George (1818-96), an School, he married, in 1735, the widow English physician, was in 1863 appointed to the chair of medicine at ham mercer, and settling at Edial, King's College, London, and was for some years house-surgeon at the was David Garriek. In 1837 he went hospital connected with the college, up to London with Garriek, determined to he hospital, and three years

book (1852), and he also published Lectures on Bright's Discase, 1873.

Johnson, Jack (b. 1878), a negro prize fighter, gained world wide lished London (1738), for the copyrotoricty by his victory over J. J. Jeffircht of which the author received fries at Reno, U.S.A., in 1910. By this 1210. Six years later he wrote a blo-

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graphy of his friend Richard Savage, with whom he had sometimes roamed the streets at night for want of the price of a lodging. In 1747 he issued the plan of his *Dictionary*, upon which, with the help of six amanuenses, he laboured for eight years. He published the best of his poems, The Vanity of Human Wishes, in 1749; and in the same year Garrick produced Ircne at Drury Lane Theatre, where it ran for nine nights. J. in 1750 conceived the idea of a paper on the lines of the Spectator, which he called the Rambler, which he issued twice a week from March 20. brought him a wider fame than any of his earlier writings. In 1754 Chester-field, to whom the plan of the



SAMUEL JOHNSON

Dictionary had been inscribed long ago, now repented himself of his continued neglect of its compiler, and in the World wrote two papers commending the work; whereupon J., whose pride had been outraged, replied in the famous oft-quoted letter (Feb. 7, 1755), in which he said that the notice, 'had it been early, had been kind,' and added, 'but it has been delayed till I am indifferent and cannot enjoy it; till I am solitary, and cannot impart it; till I am known and do not want it." The quiet severe dignity of this inimitable letter alone would have made its author famous. J.'s mother died in 1759, and to pay the expenses of her illness and funeral he wrote Rasselas, the most popular of all his works. Three years later his

with the grant by Bute of a Civil List pension of £300 a year. In 1765 he brought out his long-promised Shakespeare, and between 1779 and 1781 published The Lives of the English Poets. J. had acquired a position in literary and artistic circles that has rewarded the efforts of no other man. He was the acknowledged dictator of

'The Club,' founded in 1763 by himself and Sir Joshua Reynolds, and numbering among its limited membership, Burke, Johnson, Beauclerk, Langton, Hawkins, Boswell, Garrick, Gibbon, Fox, Sheridan, and Adam Smith. There he laid down the law to all and sundry in that witty truculent style of conversation which Boswell has madefamiliar. Among his private friends were the Thrales and the Burneys, and with these he made excursions to different parts of England, a fascinating companion, if not always a pleasant guest. Thrale's death, he quarrelled with the widow who decided to marry Piozzi. As a writer he had a ponderous style, which was often burlesque, and was best described by Goldsmith who said that the Doctor would make little fishes talk like big whales. He was didactic to an extraordinary degree, and he inculcated moral sentiments with gusto in season and out of season in Rasselas as in The Rambler. A man markedly disposed to belief in super-

early : and Meditations (1785). He had great courage, and a tender regard for humanity that was evinced in the kindness for and the generosity he displayed towards the unhappy, the poor, and the weak. J. is the most familiar figure in the 18th century, and if in the first place he owes this to his remarkable personality, in the second he is indebted for it to Boswell, who, in his biography, the masterpiece of biographies, has The best painted him to the life. edition of Boswell's work is that brought out by Dr. Birkbeck Hill (6 vols., 1887).

Johnson City, a tn., Washington, Tennessee, U.S.A. It manufs. furniture, and has tanneries and iron foundries, and is the site of a home for soldiers. Pop. (1910) 8502

Johnston, Albert Sidney (1803-62). an American general, graduated at He rapidly rose to the West Point. He rapidly rose to the command of the forces of Texas, and successfully banished the Indian marauders from the N. of that state. After serving in the Mexican war, he was appointed paymaster to the United States army (1849), and in 1858 quelled the Mormon revolt withfinancial troubles came to an end out bloodshed. On the outbreak of

but was mortally wounded at Shiloh President Davis pronounced

his loss irreparable.

Johnston, Alexander Keith (1804-71), a Scottish geographer, was an exceptionally accomplished linguist exceptionally accomplished linguist and a skilful designer. His magnum onus was his Physical Alias (1848), which illustrates the zoology, geology, botany, meteorology, and ethnology of the world, and which was described by a French Geographical Society in 1851 as 'Un des plus magnifiques magnuments' of science in the century.

1851 as 'Un des plus magnifiques to monuments' of science in the century. Monuments' of science in the century. Monuments' of science in the century. In the science of the panied a survey expedition to Para-guay as geographer, and in 1878 was guay as geographer, and in 1878 was appointed to the command of an expedition to Lake Nyasa, which the Royal Geographical Society, of which he was a life member, financed. He he was a life member, financed. He died of dysentery and was luried in direct of Africa. 'Africa, in Stanford's Companying of Geography, and a sories of mendium of Geography, and a sories of members. pendium of Geography, and a series of treatises on physical geography are his chief works.

Johnston, Archibald, Lord War-riston (c. 1610-63), a Scottish advocate and statesman, was called to the bar in 1633, and was freely employed by the Covenanters in framing their prothe Covenancers in training there pro-tests against the persistent attacks of Laud and the High Church party, and in answering the senseless and and in answering the senseless and aggressive proclamations of Charles I. The general assembly of 1638 chose lim as clerk, and two years later he lim as clerk, and two years later he was deputed with seven others to negotiate with the English commissioners. Throughout the Civil War he counted his influence to a sevented his influence War he exerted his influence to draw his fellow-countrymen into active opposition to the Royalist cause and himself proved so staunch a parlia-mentarian that Cromwell eventually raised him to the peerage and apraised nim to the pecuage and appropriated him as a commissioner-judge of Scotland. At the Restoration he fled abroad, and in 1663 was executed to the control of the contr

civil war, he joined the Confederates, version of the Psalms (1637) is inversion of the Psalms (1637) is in-ferior in popularity, and probably in merit to Buchanan's, but his con-tributions to the Deliciæ Poetarum Scotorum (1637), his satire entitled Consilium Collegii Medici Parisiensis (1630) and his alegy on James VI Consilium Collegii Medici Paristensis (1619), and his elegy on James VI. (1625) prove him a good Latin scholar and no mean poet withal, soloar and no mean poet withal, (b. 1858), a British explorer and diplomat, studied art for four years of the Boyal Academy schools and

at the Royal Academy schools, and throughout his life took an active throughout his life took an active interest not only in painting, but in interest not only in painting, but in zoology, botany, anatomy, and architecture. After exploring Tunisia and tecture. After exploring Tunisia and into the Congo Angola, he penetrated into the Congo district above Stanley Pool (1883), and in the Collowing year led a and in the Collowing year led a scientific expedition to Mount Kiliscientific expedition to Moun delta as vice consul or consul in the delta as vice-consul or consul in the British interests, and later, as consul for Portuguese E. Africa, he subdued the slave-trading Arabs in the region of Lake Nyasa, and established a large of Lake Protectorate N. of Lake Tanganyika. For five years (1891-96) he was consul-general in British ranganyika. For nive years (1891-96) he was consul-general in British central Africa, and for two years (1899-1901) he was employed in the (1899-1901) he was employed in the his books of travel and description his books of travel and description are: The Colonisation of Africa 1890. ms books of travel and description are: The Colonisation of Africa, 1890; and A History of the British Empire and A Fishery in Africa, 1910.

Johnston, James Finlay Weir (1796chemist, studied under 1855), a chemist, studied under Berzelius in Sweden, and later be-came professor of chemistry at Durham University. Ho chiefly Durham University. Ho chiefly interested himself in the rel tion of his chosen science to agriculture, and his chosen science and read that the suppose analysed collection. for that purpose analysed soils from all parts of the realm. His Calechism of Agricultural Chemistry and Geology, and similarly his Lectures (1883) have done much to stimulate cultivation

one much to summate curricular on scientific lines.
Johnston, Joseph Eggleston (1807-91), an American general, graduated at West Point, and fought in the Black Hawk and Seminole Wars. In the Mexican War he again and again the Mexican War he again and again distinguished himself by his gallantry, pointed min as a commissioner-judge of Scotland. At the Restoration he deformed at the Restoration he are severed at Edinburgh without trial, in accordate Edinburgh without trial, in accordance with a sentence of outlawry ance with a sentence of outlawry ance with a sentence of outlawry and a scottish writer of Latin verse, states army to join the Confederate Scottish writer of Latin verse, states army to join the Confederate States army to join the Confeder 26,000 men to J.'s 10,000. In 1865, Jesus came to him for baptism, and after a desperate resistance at on this occasion John makes a clear Bentonville, he surrendered to Sher-

geographer, was iointfounder with his brother of the wellknown firm of W. & A. K. Johnston which produced (1826),Bryce's Family Gazeteer, etc. For three years (1848-51), he was lord provost of Edinburch.

Johnstone, a tn. in Renfrewshire, Scotland, about 3 m. S.W. of Paisley. The town has cotton mills, brass and iron foundries, and machine shops. There are also coal mines in the vicinity. Pop. (1911) 12,045.

Johnstone, Family of, was a famous

Border family, notorious for its tur-bulence and feuds with its neighbours, especially the Douglases and Maxwells. The family took its name from the lordship of Johnstone in Annandale, Dumfriesshire, and three branches of the family still exist: Johnstone of Annandale, Johnstone of Westerhall, and Johnstone of Hilton and Caskieben in Aberdeenshire. All three branches claimed the title of Earl of Annandale which had become extinct in 1658; Charles II. decided the claim in favour of a member of the first, the Earl of Hartfell, who was created Marquis of Annandale in 1701.

Johnstown: 1. A city and co. seat of Fulton co., New York, U.S.A., on Cayadutta Creek and 48 m. N.W. of Albany. It has some mills and gelatin factories and is, after Gloversville (3 m. to the S.), the most important glove-making centre in the U.S.A. Pop. (1910) 10,447. 2. A city of Cambria co., Pennsylvania, U.S.A., on the Conemaugh R., 75 m. E. by S. of Pittsburg. Coal, iron-ore, fire-clay, and limestone abound in the neighbourhood, and the chief industry is the smelting of iron and steel. There are important manufactures of potters appeared both the control of the contro factures of pottery, cement, leather, bricks, beer, furniture, and woollen goods. In 1889 the bursting of the dam of the S. Fork Reservoir caused a tremendous flood which almost destroyed the city and cost a total loss of over 2000 lives. Pop. (1910) 55,482.

John the Baptist, Saint, son of Zacharlas, a priest of the Temple, and Elizabeth, the cousin of the Blessed Virgin, was the immediate forerunner of Christ. He was the last of the great prophets to preach repentance and the coming of the Messiah. He lived an ascetic life in the wilderness beyond Jordan, though it would appear that his asceticism was not one of his primary characteristics, and that he cannot, therefore, have been closely connected with the Essenes (q.v.).

confession and acknowledgment of his man on terms similar to those of Lee. inferiority. The life and work of St. Johnston, Sir William (1802-88), a J. the B., on which the gospel histories throw much light, has been the subject of much study during recent years. See especially A. Blakeston's John Baptist and his Relation to Jesus. 1912.

> Johore, an independent state at the southern extremity of the Malay Peninsula under British protection and the rule of a native sultan (Ibrahim, proclaimed 1895). The coast is swampy, and the general character of the country low-lying and covered with forest. The highest peak is Mt. Ophir (3840 ft.) and the principal river the Muar. It is connected by rail with Penang and Singapore. The chief products are gambier, black pepper, opium, coffee, and timber. Area (estimated) 9000 sq. m. Pop. (estimated) 200,000, of whom 150,000 are Chinese.

> Johore Bahru, the cap. of the state of Johore, Malay Peninsula, on the S. coast, about 15 m. N. of Singapore. It has a fine palace built by the Sultan Abubakur, and is a favourite resort from Singapore, having been termed the 'Oriental Monte Carlo.' Pop.

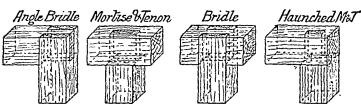
(estimated) 20,000.

Joigny, a tn. in the dept. of Yonne, situated about 17 m. N.N.W. of Auxerre. The chief productions are wine and woollen goods. Pop. 6000.

Joinery, the complementary art to carpentry; the latter is concerned with the essential parts, the former with the ornamentation of buildings, etc. It includes the work done at the bench, in the preparation of the finished woodwork of buildings, such as doors, window frames, cupboards, etc. The main distinction between the two lies in the fact that the joiner works almost entirely in planed or wrought wood, whilst the material used by the carpenter is not so treated. The timber for joiner's work should be seasoned until it has lost one-third of its weight. The operations of J. require greater accuracy than those of carpentry; the joints must be accurately fitted and all exposed surfaces made smooth. A separate classification of the joints used in the two arts may be employed, but no hard and fast distinction can be drawn, as many The mortise joints are used in both. joints are used in ooth. The mortise and tenon joint, especially, is used in the framing of doors, cupboards, partitions, etc. The wood used by joiners is called stuff, and consists of 'planks' or 'boards,' 'deals,' and 'battens,' so named according to their widths. Battons vary from 2 to 7 in. in width, deals are 9 in., and

planks 11 in. The joints used to connect boards lying edge to edge comprise edge butt joint, rebated and filleted joint, rebated grooved and tongued joint, dovetail slip-feather joint, dowelled joint, grooved and tongued joint, matched and beaded joint, splay-rebated joint, rebated joint, etc. 'Matchboarding' has a tongue and head worked on one edge. tongue and bead worked on one edge and a groove on the other, so that when the pieces are placed together when the pieces are placed together the joint is masked by the bead, and the tongue prevents the passage of dust, etc. A 'slip-feather' is a piece of wood which is inserted in plough grooves to strengthen a glued joint, etc. It may be of soft wood, when it is in short lengths, with the grain across the length, or in hard wood, with the grain across the length, I will be the soft length, I will be the boards meet each other at right angles, a dovetail joint is most commonly

screws, Beadings are extensively used at the joints of boarding, in order to hide any opening of the joint caused by shrinkage. They are curved in section, and of convex shape. A beading is 'stuck' when it is formed from the material of the board, but 'laid in' when it is a separate piece fastened to the board. separate piece fastened to the board. Mouldings are often used to orna-ment the arrises of joiner's work; in Greek mouldings elliptical and parabolic curves are chiefly found, whilst in Roman mouldings the curves are segments of circles. Different types of mouldings are known as 'Torus,' 'Cavetto,' 'Ovolo,' 'Scotia,' 'Cyma Reversa' or 'Reverse Ogee,' 'Cyma Reversa' or 'Reverse Ogee,' etc. Doors may be divided into three classes: 'Ledged,' framed and ledged,' and 'framed and pannelled.' The first class is used for the doors of outbuildings, etc. Such doors are made of vertical battens' about 5½ in. wide, butted against one another and securely bolic curves are chiefly found, whilst dovetail joint is most commonly 'battens' about 51 in. wide, butted used. Dovetailing is of three kinds: against one another and securely 'common,' 'lap,' and 'mitre.' The nailed to horizontal cross 'ledges.'



projection and excavation in the stuff, the second conceals the dove-tails but shows the thickness of the

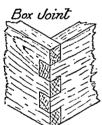
first class shows the form both of the To prevent the tendency to droop at projection and excavation in the the outer edge, sloping 'braces' are stuff, the second conceals the dove- often inserted between the ledges, projection stuff, the second conceases of the tails but shows the thickness of the lap in the return side, whilst the third class shows only a mitre in the edges a 'ledged and braced' door. Framed of the planes at their surface of concourse. In cases where it is undesirable to show the end grain of the wood, mitring is employed. When twolengthsof' when twolengthsof' when twolengthsof' when the positions in the door, e.g. s, have different names according to their positions in the door, e.g.

the angle and to no moulding is cut ing to their positions in the door, e.g., three different names according to occrespond with the profile of the other, the operation is called serbing, which is also the name given to the cutting away of the edge of a board in order to make it off texactly to a plane surface. Bevelthing is joining two surfaces so as to make an oblique angle, or 'bevel'; the panels of a door. The framing, ling is joining two surfaces so as to make an oblique angle, or 'bevel'; doors, is put together, wedged up, thus the boards forming a mitred and finished before the battens are joint are cut to a bevel. In almost all joints glue is used as an aid to about one-third the thickness of the security; 'glue-blocks' are short of joints to strengthen them. Other inserted as the latter is put together, fastenings for joints include cleats, joint bolts, wedges, plas, nails, and

and the panels are plain, is known as 'square and flat'; other styles are: 'stop-chamfered,' single moulding,' tically past each other and balanced and 'bolection moulding,' each with many varieties. For wide doorways 'folding doors' are used; for improving the appearance of a wide low doorway, a 'double margin' door to another, and are contained in a 'staircase.' Wooden stairs consist of horizontal 'treads,' supported by vertical 'risers' under their front tate folding doors, isotten used. Doors which have the upper panels of glass ends of both treads and risers. String which have the upper panels of glass are known as 'sash doors,' and are used as the outer doors of shops, vestibule doors, etc. Outer doors are hung to solid generally wooden frames, consisting of two uprights called 'jambs' and a cross piece or 'head.' When the doorway is higher than the door, a cross-rail called a 'transom' is placed across at the height of the top of the door, whilst above this is a window called a 'fanlight. For hanging doors, 'tee,' 'spring,' 'butt,' and 'hook and eye' hinges are used. Windows are

blage of steps for passage from one floor to another, and are contained in a 'staircase.' Wooden stairs con-sist of horizontal 'treads,' supported by vertical 'risers' under their front edges; 'string boards' support the ends of both treads and risers. String boards may be either 'close' or 'cut,' the former has its long edges parallel to each other, the lowest portion being termed an 'apron,' whilst the latter has its upper edge cut to the line of the treads and risers. string which is adjacent to the wall is generally a close string, the outer string being either 'cut and mitred or 'cut and bracketed.' A 'wreathed string' is the name given to the outer doors, 'tee,' curved string of a geometrical stair.

Windows are are not in the same straight line, the







Toinery

usually made in two parts, the 'frame' and the 'sashes,' although in some warehouses, etc., the frames holding the glass are fixed as 'fast sheets.' The sashes are of two kinds, 'casement sashes,' when they open the similar marginal and seemed as the in a similar manner to doors and are hung to solid rebated frames, and 'hung sashes,' which slide vertically each alongside other, and are balanced by weights. The parts of the frame form a box on each side in which the weights are suspended: the outer groove is always occupied by the upper sash. The outer uprights and main cross-pieces of sashes are called 'styles' and 'rails' respec-tively, as with doors; any intermediate vertical or horizontal mem-bers are called 'bars.' Bay windows' is the name given to windows which project beyond the face of the wall. Dormer windows are windows constructed in the sloping surfaces of to give roofs, distinguished from 'skylights' by standing vertically, whilst the latter lie in a surface parallel to the faced plane of the roof. 'Window shutters' are pla may either consist of hinged leaves of a room, for ornamental purposes:

change of direction is obtained either by 'winders' or 'landings.' The latter are constructed as small floors. and called 'quarter-space' or 'halfspace' landings according to angle between the flights; 'winders are steps, the treads of which taper in plan and allow the person using them to turn to the right or left. The principal types of stairs are 'straight flight,' with or without landings, 'stairs with winders,' 'dog-legged,' 'open navel,' and 'geometrical' stairs. Handralls form the capping piece of the balustrading, upon which the hand rests in ascending or decending the stairs; they are usually rounded and fixed about 21 ft. above imaginaryline

igs, or rounded ads in a stair). around the inside of do

to give a fir whole; they or 'sir -'

they may be 'plain' or 'moulded.' any direction even though the actual Both architraves and skirting board are generally secured ph mooge battens called 'grounds,' the backs (' which grooved, rebated, are or splayed, and fixed by means of plugs, splayed, and fixed by means of pross, wood pallets, or joints to the wall. For the construction of floors, roofs, etc., see Carpentry. See J. W. Riley. Ty., 1905; F.C. d Joinery, F. C. Joinery, 1903; Joinery, 1904; G. L. Sutcliffe, Modern Carpenter, Joiner, and Cabinet Maker, 1902: Binn and Marsden, Principles of Educational Woodwork, 1909, etc. Joint Adventure, a partnership entered into for a single adventure or undertaking. Such a partnership is usually called a syndicate, and in the absence of express stipulation, the law presumes that the partnership comes to an end on the completion of the adventure or special financial or industrial project for which syndicate was formed. The term J. A. is also used in Scots law with the same meaning.

Joint Fir, a term applied popularly to any species of Gnetacere, an order consisting of small trees or shrubs closely allied to members of the

Coniferæ.

Joints. The study of anatomical is technically termed arthrology and includes an examination of the connections between any two or more parts of the skeleton. It is usual to divide J. into two classes, viz. immovable and movable, and the latter again into perfect and imperfect. Examples of the immovable (synarthroses) are those formed where an ossification takes place, as in a membrane, e.g. a suture of the skull. A special form of immovable junction is shown in the gomphoses or peg and socket Js. of the fangs of teeth into tooth sockets of the jaw. Certain Jones white bones, which are distinct in early life, tend to ossify after middle age. This syntosis is shown in the case of the fusion of the distinct pubis, ischium, and ilium into the single os Imperfect J. innominatum. (amphiarthroses) are those in which the conjoined bones or cartilages present smooth surfaces, capable rotatory motion, to one another, but are connected by cartilages or ligaments, the flexity of which alone allows of any mobility at the junction. Examples of such J. occur in the vertebral column, where thick plates of fibro-cartilage separate the flat surfaces of the vertebre. The considerable arrangement gives

n any pair of verte-he pubic symphysis are only imperfect but in consequence of their presence the pelvis has considerably more elasticity than it would have if it were all one bone. In all perfect J. (diarthroses) the articulating bony surfaces are covered with cartilages, the convexities of the one cartilaginous cap fitting more or less closely into the concavities of the other. In some cases these articular cartilages are separated by interarticular plates of cartilage lying between them, and in this case the opposing faces of the interarticular and of the articular cartilages fit into one another. tween any pair of pads of either type there is a lining of synovial membrane forming a closed sac and containing a viscid lubricating secretion termed synovia. The actual shape of the surfaces forming the J. varies greatly and may be spheroidal, cylindrical, or pulley shaped, and it is suggested that in some cases the movement to which a J. is subject may determine or modify its shape so as to cause it to present divergences in different individuals. The following are some of the chief forms of J. of the human frame: (a) Ball and socket, a spheroidal surface furnished by one bone works within a cup furnished by another; this will allow of motion of the former bone in any direction, its extent being dependent on the concavity of the cup. This is deep in the case of the hip J. and the extent of movement is sacrificed to obtain additional strength. The shoulder yields an example of an extended movement, example of an extended movement, for in this the glenoid cavity is shallow. (b) Gliding, in which the articular surfaces are flat. Examples are given in the tarsal J., the intercarpal J., and in the jaw J. in one of its movements. (c) Hinge, which has a nearly cylindrical head fitting into a corresponding sacket the move. a corresponding socket, the movement being practically restricted to a direction perpendicular to the axis of the cylinder; examples occur the case of the elbow, knee, ankle, and interphalangeal J., where sulv-able attachments or bony processy prevent a backward dislocation. (d) Double hinge or saddle, in which the articular surface of each bone is concave in one direction and convex in a direction at right angles to this, e.g. carpo-metacarpal J. of the thumb. The tarso-metatarsal of the big toe is not a saddle J. (e) Condyloid, this is similar to the saddle and allows springiness to the column, and tends flexion, extension, and lateral move-to eradicate shocks caused by the ment and no rotation, but it is usually jar in walking, jumping, etc., at the a weaker form of J.; examples, wrist same time the body may be bent in and metacarpo-phalangeal. (f) Pivot.

on which another turns, or it turns on its own axis resting on another bone, an example of the former is given in the case of the atlanto-axial, in which the odontoid peg of the axis passes through a ring-like portion of the atlas; this arrangement allows of the head being turned or shaken through a considerable axis. angle. The occipito-atlantal J. used in nodding the head, is of a different type. The case of the rotation of a bone on its own axis is illustrated by the radius, which has a shallow cup adjacent to the humerus and a concave surface at its lower end which articulates with the ulnar. In pronation the radius turns on its own axis at its upper end and glides round the ulna at its lower.

Discases.—The chief diseases of J. are those affecting the synovial membrane or the bone itself and but rarely the articular cartilages or the liga-ments. Accidental injuries may cause sprains, in which the ligaments are stretched or lacerated, and there may be bleeding into the synovial cavity; swelling and chronic synovitis may result. Careful bandaging or strapping is necessary. Contusion results from the violent driving together of two opposed ends of bones. Dislocation results in a separating of the bones, and is relatively frequent at the shoulder and less so at the hip. The shoulder and less so at the hip. ankle and wrist are seldom dislocated as the J. are usually stronger than the fibula and ulna respectively, which may fracture under the strain. Synovitis, or the inflammation of the synovial membrane, may be due to micro-organisms existing during blood-poisoning, fevers, etc., or it may be caused by a punctured wound of the J. Rest and suitable supporting bandages are essential.

Permanent stiffness may be due to several causes. The synovial membrane may be destroyed and an osseous solidification may render the

J. inoperative.

Rheumatoid arthritis is particularly prevalent in certain areas and in ceriain types of individuals. The articular cartilages may be worn away and replaced by an extra growth of and replaced by an extra growth of bone at the knee, hip, or fingers. In the last case the fingers are knotted and the hands deformed. The gradual spread of the complaint in the patient and the little response which makes to treatment add to its illfame.

described by Van Hise, and vary in the instrument, e.g. the children of visible width from that of a hair to X may take as and when they are

in which one bone furnishes a pivot; well-marked fissures, which in certain rocks may be widened by the solvent action of rain water, e.g. the grykes of the limestone regions of Yorkshire and the Lake District. They are most abundant in coherent rocks and absent in loosely packed material. In sedimentary rocks they normally run at right angles to the bedding planes, and there are well-marked dip joints at right angles to strike joints. Daubrée has proved that folding is largely responsible for their occurrence and movement along a results in the formation of a fault; such movement is shown by the striated surfaces — slickenslides — of some J. The force producing them was often of the greatest intensity. for pebbles existing in conglomerates have been found divided with cleancut surfaces. The J. not only give passages for the circulation of underground water but also for highly concentrated mineral solutions; on occasion the minerals are deposited and many mineral veins, e.g. calcite barytes, ores of lead, etc., are of this type. In igneous material the J. which are fewer usually traverse vertically and dykes In Cornwall the master zontally. joints in igneous rocks are vertical and a horizontal J. of frequent occurrence resembles the bedding plane mentioned above. This occurrence is of the greatest value in quarrying as it tends to divide the rock masses into definite cuboidal blocks. Contraction during desicca-tion or cooling also gives well-marked fissures, and the hexagonal columns of, e.g., the Giant's Causeway have doubtless been produced by latter action.

Joint-Stock Bank, see BANKS AND BANKING.

Joint - Stock Company, see [Com-

PANY. Joint Tenancy. Where two or more persons hold the same lands by grant (q.v.) or devise (i.e. under a will), there being in the instrument of title no words indicating that they are to take in distinct shares, such common ownership is called a J. T. The essential elements of a J. T. are the following four unities: (1) Unity of the control of th title, i.e. the joint tenants acquire title under one and the same instrument; (2) unity of time of commencement of title, i.e. the estate of each vests at the same time. But under a will or deed operating under the Statute of Uses (see Equity, Chancellor, Chancery Court, Trusts Joints, in geology, are divisional CELLOR, CHANCERY COURT, TRUSTS planes in rocks. They never extend AND TRUSTEES, CONVEYANCE) benebeyond the outermost crust, i.e. ficiaries may acquire title on the ful-beyond the 'zone of fracture' as filment of contingencies expressed in

born; (3) unity of interests, i.e. each wife, in the event of her surviving has the same quantum of estate, him, she has the right after his death e.g. one may not hold a fee simple of electing between taking the J. or and another for life; and (4) unity of possession which is expressed in the possession which is expressed in the phrase, Seisin (possession) per my et per tout, i.e. each joint tenant has an equal allquot share of benefit in the undivided whole. The principal characteristics of a J. T. is the right of survivorship, wherein it differs from tenancy in common (see under COMMON TENANCY). A J. T. may be severed: (1) By partition, (2) by one joint tenant allenating his interest, or becoming entitled to a larger interest in the same lands. Partition interest in the same lands. Partition may be either by agreement and perfected by deeds of mutual release, by order of the Board of Agriculture, or by action in the Chancery Court under the Partition Act, 1868. In an action the court will order a sale instead of partition if those interested to the extent of one-half request it, but if less require a sale the court may direct a sale unless the others buy out the interest of the party or parties requesting sale.

Jointure, in law, is a term denoting the provision made for a wife out of her husband's property in the event of his predecease. Unlike dower it is not limited to real estate, but now

inated in the of substitution for dower in cases in which the latter had no application. The right of dower gave the widow an indefeasible life estate in one-third of her husband's freeholds of inheritance, and when formerly lands be-came conveyed to uses (trusts), to which the common law right of dower did not attach, it became necessary to make some further provision for the widow. This was effected by giving her, in Coke's words, 'a com-petent livelihood of freehold of lands and tenements.' The effect of the Statute of Uses, which turned 'uses' into legal or common law as opposed to equitable estates, was to cause dower to attach to uses, and to pre-vent a widow from having both dower and J., the statute provided that the former may be barred by the wife's acceptance before marriage, and in satisfaction of her dower of a competent livelihood of freehold lands. The Statute of Uses may therefore be said to have originated the modern J. which usually takes the form of a yearly rent-charge or annuity created by a marriage settlement which settlement which marriage makes provision for his tragic actress. Until 1863 he took no

claiming dower.

Joinville, a tn. in the dept. of Haute-Marne, France, on the R. Marne, was the birthplace of Jean de Joinville and of Mary of Guise. The château was erected under the direc-tion of the Dukes of Guise. The town

contains blast furnaces, and manufs. chain cables. Pop. 3700.

Joinville, François Ferdinand Phi-lippe Louis Marie d'Orléans, Prince de (1818-1900), third son of Louis Philippe, King of France, born at Neuilly. He entered the navy and became a lieutenant in 1836, first distinguishing himself at the bombardment of San Juan de Ulloa (1838). In 1840 he was given the charge of conveying the body of Napoleon from St. Helena. In 1845 he successfully bombarded Tangier and occupied Mogador in Morocco. At the revolution of 1848, he sought refuge with the rest of his family in England. In 1870 he returned incognito France, and fought at Orleans, but on the revelation of his name was expelled by Gambetta. From 1871-76, however, he was allowed to sit as member for Haute-Marne in the National Assembly.

includes any provision made by a settlement for the support of the wife in the eye. Champane. Ho accompanied Louis lusband. The Louis in his unlucky Crusade (1248-54), and while at Acre composed his Credo or confession of faith (1250). He begun his Vie de St. Louis at the request of Jeanne de Champagne, when he was nearly eighty (completed 1309). There is an excellent critical edition of this by Natalis de Wailly (1874). See Didot's Eludes sur Joinville, 1870, and A. F. Delebergie, Levi de Livielle, 1870. Delaborde's Jean de Joinville, 1894.

Joinville-le-Pont, a com., Seine, France, near the Bois de Vincennes, and 5 m. E. of Paris. Pop. 7000.

Jókai, Maurice (1825-1904), a Hungarian novelist, born at Rév-Komárom. He qualified as an advocate, but, encouraged by the praises of the Hungarian Academy about his play Zsido fin (Jew Boy), he went to Pesth and embarked on a literary

of the rising talent of his country. For his part in the Revolution of 1848-49. and his support of Kossuth, he was proscribed by the government, and specifies the mode and time of its his life was only saved by a stratagem payment. Where the husband after of his wife, Rosa Laborfalys, the further part in politics, but published chapel-master to the Duke of Würsixty romances and edited three tembers at Stuttgart. His best known periodicals. In 1863 he founded the government paper Hon, and entered parliament, becoming an ardent supporter of Koloman Tisza (1875-90). Among his romances, nearly all of which have been translated into English are: The Golden Age of Transylvania, and its sequel, The Turks in Hungary; Timar's Two Worlds, 1888, perhaps his masterpiece; Eyes like the Sea, which won the Academy's prize in 1890; Midst the Will Caracterists 1994 with its sequel Tracking 1994. pathians, 1894, with its sequel, The Slaves of the Padishah, 1903; Pretty Michal, 1897; The Lion of Janina, 1897; A Christian, but a Roman, 1900; The Baur's Sons, 1902; and Tales from Jokai, 1904, with a biography by R. N. Bain. His work is sometimes marred by a straining after effect, and an ultra-romantic tendency, but is remarkable for its vivid imagination and a humour comparable with Dickens. See Névy László, Jokai Mor, and H. W. Temperley, 'Maurice Jókai and the Historical Novel,' Contemp. Review, July 1904

Jokjokarta: 1. A residency of Java in the central part of the island. Area 1200 sq. m. Sugar, rice, and indigo are cultivated, and salt, coal, marble, and gold are found. (1897)858,392. 2. Or Djokjokarta, the cap, of the above, at the foot of Mt. Merapi, 35 m. S. of Surakarta, has a remarkable native palace and the ruins of an old Dutch town and fort.
The Jogka market is famous for jewellery. Pop. 72,235.
Joliba River, see NIGER RIVER.

Joliet, a city and co. seat of Will co., Illinois, U.S.A., on the Des Plaines R., and 40 m. S.W. of Chicago. It is the seat of the state penitentiary, and the headquarters of the Illinois Steel Company and other large steel works, factories, and rolling mills. Calcareous building-stone, cement, fire-clay, and coal are found in the neighbourhood. Pop. (1910) 34,670.

Joliette, or industry Village, a tn. in suggested b Quebec, Canada, 35 m. N treal. It is an agricultural c has manufs. of paper, ir flour, and lumber. Pop. 4500.

Jolly-boat, a small clincher-built boat, not so large as a cutter; it is usually hoisted at the stern of a vessel, and used for miscellaneous services. It has a bluff bow, and a wide transom, and is about 4 ft. in beam, and 12 ft. in length.

Jomelli, Nicolo (1714-74), an Italian composer, born at Aversa, near Naples. In 1737 his first opera, L'Errore Amoroso, was successfully produced at Naples. In 1748 one of

works are the operas Inigenia and Armida, a Miserere, and a Requiem.

Jomini, Antoine Henri, Baron (1779-1869), a general in the French and afterwards in the Russian service, born at Payerne, canton Vaud, Swit-He served in the campaign zerland. of Austerlitz, and became principal aide-de-camp to Marshal Ney in 1805. Traité des grandes opérations militaires (1804-5) brought him to the notice of Napoleon, under whom he served at Jona and Eylau. He served through the Peninsular campaign (1808), but after the retreat from Moscow entered the Russian service, in which he took part in the Russo-Turkish War, especially at the siege of Varna (1828). Besides the Traité he wrote: Principes de la Stratégie, 1818; Précis de l'Art de la Guerre, 1830 Histoire de la Revolution, 1806; and Vie de Napoleon, 1827. See Lecomte, Le Général Jomini, 1861, and Sainte-Beuve, Vic. 1869.

Jonah, the son of Amittai, is de-

scribed in 2 Kings xiv. 25 as a Galilean of Gath-hepher who prophesied during the reign of Jeroboam II. The legend of his life, immensely popular in the middle ages, is related in the

book which bears his name.

Jonah, The Book of, the only one of the books of the twelve minor prophets which does not purport to be the work of the prophet whose name it bears. This book is a narrative of the call of Jonah to prophesy against Nineveh, his attempt to avoid this duty, and his ultimate success, fol-lowed by his reproaches to God when ultimately, on the repentance of the unishment

phecy reis not, of

course, history in any sense. It belongs to the Midrashim: and the Midrash may be defined in the words of Dr. Driver velopment

be perilous and difficult to attempt to connect the Jonah of this book with any historical personage. The story any historical personage. is post-exilic, and is based to a large extent on Persian and Babylonian mythology. The chief point of the parable lies in the writer's attempt to show that Jonah was mistaken firstly in supposing that Ninevch was less precious than Israel to Jehovah, and secondly in reproaching Him for His acceptance of the penitent. The story of the 'gourd' which terminates the book is probably hisfinest operas, Didone, was produced terminates the book is probably at Vienna. In 1753 he was appointed an original product of the author's

imagination. See Driver's Intro. (5th | ing and Rossetti. His three remarked.), 1894, and commentaries on the Twelve Minor Prophets.

Jonas, Justus (1493-1555), a German Protestant reformer, born at Nordhausen in Thuringia. He was canon of St. Severus and professor of law at Erfurt in 1518, and professor of theology at Wittenberg (1521). He was an intimate friend of Luther, whom he accompanied to the Diet of Worms and aided in his translation of the Bible. See Pressel's Monograph, 1863, and Meyer's Festchrist des 400 Jährigen geburstags des Dr. Justus Jonas, 1893.

Jonathan: 1. The son of Gershom and descendant of Moses, was the chief of the priests at Dan (Judges zviii. 30) in the time of Micah the Ephraimite. 2. The eldest son of Saul, the touching account of whose friendship with David is a popular heritage. He was slain at Gilboa, where Saul also met his death. 3. The son of Mattathias, and brother of Judas, whom he succeeded as leader of the Maccabean party. His statesmanship was greater than his ability as a warrior, and to it he owed the favourable terms which he made for the insurgents with Bacchides, the Syrian governor. He became high-priest in 153 B.C., but was slain in captivity

Jonathan, Brother, the personifica-tion of the United States, correspond-ing to the English 'John Bull'; the phrase has now been largely superseded by 'Uncle Sam.' The name is supposed to have come from Jonathan Trumbull (1718-85), governor of Connecticut and friend of Washington.

Joncières, Félix Ludger, called Victorin de (1839-1903), a French musical composer, born in Paris. His early admiration for Wagner was the cause of his leaving the Paris Con-

ser of wo

forms of French opera and took Gounod as his model. From 1871 he was musical critic for La Liberté. His

the operas, nier Jour de 1876; the incidental music to Hamlet, 1863-

68; a symphony; and other works.
Jones, Ebenezer (1820-60), an English poet, born at Islington, London. The early death of his father cut short The early death of his latther cut short his education, and compelled him to become a clerk in a tea merchant's lego, and logic and metaphysics at St. office. His defective education is very apparent in his first volume of poerry, Browning as a Religious and Philo-Studies of Sensation and Event (1843), sophical Teacher; The Philosophy of which was very unfavourably received, although admired by Brown-

able poems, Winter Hymn to the Snow, When the World is Burning, and To Death, were written when he was Death, were written when he was dying. See the edition of Studies of Sensation by Shepherd (1879), with a Memoir by Sumner Jones, also papers by T. Watts-Dunton in the Athenaum, Sept. 1878.

Jones, Sir Edward Burne-, see BURNE-JONES, SIR EDWARD.

Jones, Emily Elizabeth Constance (b. 1848), an English lecturer, took a first in the Moral Sciences Tripos (1880). She lectured on moral science at Girton (1884), becoming mistress (1903). She was examiner in logic for the Cambridge Higher Local (1902-4). Her works include translation and edition of Lotze's Microcosmus (with E. Hamilton), Elements of Logic General Logic; Primer of Elements of Logic . . ., 1890; General Logic ; Primer of Logic (2nd ed.), 1912; Primer of Ethics; 1890: Logic tò contributions Mind. various International Journal of Ethics. Hibbert Journal, Proceedings of the Aristotelian Society. She also edited Professor Sidgwick's Lectures on the Green, Spencer, Ethics Martineau.

Jones, Ernest Charles (1819-69), an English Chartist, born in Berlin. In 1844 he was called to the bar at the Middle Temple, but in 1846 joined the Chartist movement, and speedily became one of its most noted orators. His open advocation of physical violence led to his imprisonment for sedition (1848-50). In prison he wrote The Revolt of Hindostan, an epic poem. He published as well the novel, The Wood Spirit, 1841, and a number of poems including The Battle Day,

1855. Jones, Henry (1831-99), an English author, born in London. He practised as a physician in London from 1862-69. In 1862 under the pseudonym of 'Cavendish' he published The Laws and Principles of Whist Explained by Careedish Cavendish. He was a member of several whist clubs including the 'Cavendish.' His work became the standard authority on the game. See Courtney's English Whist and Whist

Courtney's Engineer Players, 1894.
Jones, Henry (b. 1852), M.A. (Glasgow), hon. LL.D. (St. Andrews), F.B.A., hon. D.Litt. (Wales), born at Wales Professor of University of

University of ormerly held and political economy at Bangor University College, and logic and metaphysics at St.

Reformer, the first and last of which lings, and was commissioned to design have gained him considerable popularity and influence among a large number of people.

Jones, Henry Arthur (b. 1851), an English dramatist, born at Grand-borough, Buckinghamshire. He was obliged to adopt a commercial career, obliged to adopt a commercial energy, but gained his first hearing as a dramatist with Only Round the Corner, produced at the Exeter Theatre in 1879, and A Clerical Error, produced in London. His melodrama, The in London. His melodrama, The Silver King; written with H. Herman and produced by Wilson Barrett in 1882, scored a great success. His Saints and Sinners (1884) caused a great discussion on account of the introduction of a religious element. The Middleman (1889) and Judah (1890) mark a great advance in technical skill, and are both powerful plays, although still of the melodramatic order. The Dancing Girl
as The Dancing (1891; revised as The Dancing Mistress in 1913), The Crusaders, (1891), The Bauble Shop (1893), The Tempter (1893), The Masqueraders (1894), The Case of Rebellious Susan (1895), Michael and his Lost Angel (1896), The Rogue's Comedy (1896), most with

His poetical drama, The Tempter (1893), was not a success, but with The Triumph of the Philistines (1895), His Mrs. Dane's Defence (1900), Chance, the Idol, and The Princess' Nose (1902), Whitewashing Julia (1903), Joseph Caulier (1904),

Dolly Reform-Knife (1909).

uniform edition of his plays began to be issued in 1891, and his views on dramatic art The Renascence of the English

Drama (1895).

Jones, Inigo (c. 1573 - c. 1652), an English architect, born in London. His talent for drawing was romarked by William Howard, third Earl of Pembroke, who sent him to Italy to study painting. At Venice he trans-ferred his attention to architecture, and in 1604 was invited to Denmark, where he is said to have designed the palaces of Rosenborg and Frederiksbances of Rosenburg and Frederitsborg. He accompanied Anne of Denmark to the English court in 1601,
and there designed the scenery for
Ben Jonson's Masque of Blackness,
given at Whitehall. In 1613, after
a second visit to Italy, J. became
in Italy, Greece, Turkey, Egypt, and
surveyor-general of the royal build. Spain for some years, and on his

additions to Whitehall, including the banqueting-room (1619-22). He held the same offices under Charles I. See Life by Peter Cunningham, 1848; W. J. Loftie, Inigo Jones and Wren, 1893.

Jones, John (c. 1765-1827), a Unidones, John (c. 1703-1821), w Ohit-tarian minister, born in Carmarthen-shire. In 1795 he was appointed pastor at Plymouth Dock, and sub-sequently at Halifax, Yorkshire, and at London. The introduction of Greek-English lexicons is due him, Greek having hitherto only been studied through Latin books. Greek and English Lexicon was published in 1823. He also published Illustrations of the Four Gospels, 1808.

Jones, John Paul (1747-92), a commander in the American navy, born at Kirkbean, Kirkeudbright, Scotland. In 1764 he shipped as mate on a slaver and made several voyages to When war broke out be-America. tween England and America in 1775, J. was given a commission in the American navy. In 1778 he was sent on a mission to Brest, and during a cruise round the British coasts successive and a process and the sent of the sent e Drake, and

Whitehaven. 3 British ship

Scrapis. In 1783 he was the agent in Paris of America for the collection of raris of America for the collection of prize money, and in 1788 joined the Russian navy, taking part in the battle of Liman (1788), but left in 1789. He died in Paris, and the record of his burial-place was lost until in 1905 it was discovered in the Protestant part of the old St. Louis cemetery. His body was then cemetery. His body was escorted by a fleet of American warships to Annapolis. See Sherburn's Ships to Annapolis. See Sherburn's Life of Paul Jones, 1825; Janette Taylor, Collections, 1830; Life by C. Townshend Brady in Great Com-manders Series, 1900; and Wisson Characteristics Churchill's novel, Richard Carvel, 1903.

Jones, Owen (1741-1814), a Welsh antiquary, born in Denbighshire. He entered a firm of furriers in London in 1760, and eventually succeeded to the business. His spare time he devoted to the collection of ancient Welsh manuscripts (now in the British Museum), some of which he published under the title, The Myvyrian Archaeology of Wales (1801-7), a collection of poems dating from the 5th to the close of the 13th century. He was the founder of the Gwyneddigion Society in London (1770).

return designed several public build-theatre. They appeared at festi-ings, although his specialty was vals, gave their entertainment, and interior decoration. He was one of the superintendents of works for the Exhibition of 1851, and was the designer of the Egyptian, Greek, Roman, and Alhambra courts for the Crystal Palace. He published Designs for Mosaic and Tessellated Pavements. 1842; Polychromatic Ornament of 1842; Polychromatic Ornament of Italy, 1845; and, the most important, Grammar of Ornament, 1856.

Jones, Sir William (1746-94), an English Oriental scholar, born in London. He devoted himself to the study of European and Oriental languages from childhood, and in 1868 rendered a Persian Life of Nadir Shah into French at the request of King Christian of Denmark. In 1774 he was called to the bar, and in 1776 was called to the bar, and in 1776 appointed Commissioner of Bank-rupts. He then returned to his literary work, and published a translation of some ancient Arabic poems called Moalldkat (1781). In 1783 he was appointed to a judgeship in Bengal, which he held till his death; he deroted his loieure to the study of voted his leisure to the study of Hindu law the results of which were published under the title Digest of castles, Hindu Laws (1800). In 1784 he to play Hindu Laws (1800). In 1784 he to play founded the Asiatic Society in Calto har cutta, and in 1789 he published the Asiatic Society in Caltonian and the cutta and the cutt

was chaplain of the House of Lords. He published: The History and Antiquities of St. David's in collaboration with E. A. Freeman, 1852-57; a volume of sermons, The Peace of God, 1869; and editions of several of the classics.

Jonesboro, a co. seat of Craighead co., Arkansas, U.S.A., 60 m. N.N.W. of Memphis; has manufs. of leather,

of Meniphis, has manned of learner, cotton-oil, and waggons, and a large lumber trade. Pop. (1910) 7123.

Jongleurs, Jugglers, or Joculatores (Lat. joculator, a jester) were the descendants in medieval times of the Roman mimes, the strolling players one stem; in colour they are yell who were all that remained in the and the corona is well developed. 4th century of the once great Roman Jonson, Ben (c. 1573-1637), a p

vanished again into obscurity, but they alone carried down such traditions as remained of the acting drama of pagan antiquity, coming, in time, to blend with it the religious drama of the monasteries. In Northern France they very early adapted the religious drama for secular purposes, and came to be confused with the trouvères, who corresponded to the 'minstrels' of Saxon times. But the trouvères or minstrels were a superior class of entertainers; they were generally extracted to great household to great household to the them. attached to great households to sing of war and noble deeds, whereas the J. were vagabonds, strolling from yillage to yillage to exhibit their juggling and pantomimic tricks. The requirements of a J. are quoted by Sismondi: 'He must know how to compose and rhyme well, and how to compose a jeu parti. He must be able to play on the tambourine and cymbals; to throw and catch little balls on the point of a knife; to imitate the songs of birds; to play tricks with the baskets; to exhibit attacks of castles, and leaps through four hoops;

first volume of Asiatic:

His Persian Grammar was
in 1772, but it was in the study of sanskrit that his work was most the ancient ministrel and the modern valuable. His last work was a translation of Institutes of Manu (1791), tainer. They lived and travelled the study of the ancient may be a study of the ancient ministrel and variety enterlation of Institutes of Manu (1791), tainer. They lived and travelled the study of the study in 1772, but it was in the study of Sanskrit that his work was most valuable. His last work was a translation of Institutes of Manu (1791). His collected works were published by Lord Teignmouth in 1799, with Memoir prefixed in 1804. Jones' Autobiography was published by his son in 1846.

Jones, William Basil Tickell (1822-97), an English bishop, born at Cheltenham, Gloucestershire. After attaining high honours at Oxford, he was appointed Vicar of Bishopthorpe in Yorkshire

Canon of Yc

St. David's

The willished by his son in 1846.

Jones, William Basil Tickell (1822-97), an English bishop, born at Historical View of the Literature of the South of Europe (trans. Roscoe, attaining high honours at Oxford, he was appointed Vicar of Bishopthorpe in Yorkshire

Canon of Yc

St. David's

Torking of the Middle Ages, 1876.

Jönköping, a tn. of Sweden, the cap. of the prov. of the same name, 170 m. S.W. of Stockholm and 80 m. was chaplain of the House of Lords.

E. of Gothenburg, at the southern end of Lake Wetter. It has a great safety-match factory, a good shipping trade, and manufactures of snuff and crauc, and manufactures of shuff and cigars, paper, carpets and damask, dye and asphalt. It has played an important part in Scandinavian history, and was the scene of the conclusion of peace between Sweden and Denmark in 1809. Pop. 24,000.

Jonquil, the popular name for Narcissus jonquilla, a well-known and heavillate procise of Amarylic.

and beautiful species of Amarylli-dacen largely cultivated in Britain. Several of the flowers are borne on one stem; in colour they are yellow and the correct is real developed.

Jonson, Ben (c. 1573-1637), a poet

Jordan

stage. He joined the Admiral's Company, and not only took part in the performances, but also acted as hackdramatist. A quarrel with the manager, Henslowe, resulted in his offering, in 1598, his first known comedy, Every Man in his Humour, to the rival company, the Lord Chamberlain's Servants, by whom it was produced at the Globe Theatre, with Shakespeare in the cest. The with Shakespeare in the cast. The play was successful, and J. was at a



BEN JONSON

masques, numerous poems, and some works in prose. The best edition of

and dramatist, was educated at West-minster School under William Camters with Bacon, Selden, Camden, den, and after working for some time for his stepfather, a brick-layer, went abroad to join the British layer, went abroad the Admiral's Company of the possible exception of Marlowe. As a satirist he was magnificent, as stage. a humorist unrivalled except by the master-dramatist himself. His poetry was exquisite, and he gave to everything he wrote the hall-mark of his vivid personality. There are bio-graphies by Gifford (1816) and V. A. Symonds (1886).

Jonzac, a tn. in the dept. of Charente-Inferioure, France, on the League, 18 m. S.S.W. of Cognac Cap. of the arron. of Jonzac. Pop.

about 3000.

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Joplin, a city of Jasper co., Missouri, U.S.A., 140 m. S. of Kansas City. Has large smelting and white-lead works, and rich lead and zinc mines. It is on the Missouri, Kansas, and Texas and other railways. Pop. (1910) 32,073.

Joppa, the ancient name of Jaffa. Jordaens, Jakob (1593-1678), a Flemish painter, born at Antwerp. He studied under Van Oort and Rubens, being indebted to the latter for most of his artistic knowledge, and subsequently being employed by him. After Rubens' death, J. was recognised as leader of the Antwerp school. His colouring was rich and harmonious, and he excelled He also painted allegorical

and religious pictures, the and religious pictures, the line was among the latter being:
1. Let Supper, The Martyrdom of the shepherds, and Christ in the Midst of the Doctors. See Buchanan's

Jordaens et son Œuvre, 1905.

Jordan, the most important river of Palestine. It runs from N. to S.,

bound enrolled among the list of the leading dramatists. His next most important plays were: Every Man important plays were: Every Man long, and at times as much as 15 m. important plays were: Every Man long, and at times as much as 15 m. important plays were: Every Man long, and at times as much as 15 m. important plays were is 1700 ft. a-level on the W. of Mt. Revels, 1600; and The.

These were followed b.

The Forc, 1605; Epicæne, or The silient Woman, 1609; and The Alchemist, 1610. In all he is credited with eighteen plays, albeit there were probably many more of which he was author or part-author. In addition to these he wrote several below sea-level. The most important masques, numerous poems, and some feature in its course between the Sea feature in its course between the Sea masques, numerous poems, and some feature in its course between the Sea works in prose. The best edition of his collected works is that edited by Galilee and the Dead Sea is the Gifford (1816), which was re-issued for moky eleft known as the Ghor, some to which scarcely any man of letters before him had attained. 'His content of the below the level of the before him had attained. 'His content of the Jean of the Narrative and Official Reports, 1847; was La Fondation et les Premiers Lynch's Narrative of the U.S. Expedi-Progrès de l'Eglise scandinave, 1874tion, 1849; and J. MacGregor's Rob Roy

on the Jordan, 1870.

Jordan, David Starr (b. 1851), an American naturalist, born at Gainesville, New York State; educated at Cornell and Butler universities. From 1871-72 he was professor of botany at Cornell, and from 1875-79 professor of natural history at Butler University. In 1885 he became president of the University of Indiana, a position he continued to hold till 1891. He is the author of: Fishes of North and Middle America; Care and Culture of Men; Science Sketches; Footnotes to Evolution; Animal Life; Food and Game Fishes of North Food and Game Fishes of North America; The Human Harrest; The Stability of Truth; and numerous papers on ichthyology and evolution.

Jordan, Dorothea (1762-1816), an actress, made her theatrical debut at Dublin in 1777 as Phoebe in As You Like It. She acquired much experience in the provinces, and it was not until 1785 she first appeared in the metropolis at Drury Lane, with which theatre she did not sever her connection until her retirement from the stage twenty-one years later. She made no mark in tragic rôles, but as a comedienne she won many laurels. She had more than one intrigue be-She had more than one intrigue be-fore 1790, about which time she be-came the mistress of the Duke of Clarence (afterwards William IV.). She bore him many children, who took the name of Fitzelarence, and became well known in society; and the connection lasted until 1811. Four years later she went abroad, where, at St. Cloud, she died in 1816. There is a biography by James Roaden (1831).

Jordan, Sir Joseph (1603-85), an English admiral, who fought in the Dutch wars and was in command at the victory of Solebay in 1672, serving as vice-admiral of the Blue.

Jordan, Thomas (c. 1612 - 85), an English poet and pamphleteer, born in London. He began life as an actor at the Red Bull Theatre, Clerkenwell, publishing his first volume of poems. Podicall Varieties, in 1637. In 1671 he was appointed laureate to the corporation of London, and composed every year a panegyric on the Lord Mayor, and arranged the pageants, celebrating them in verse. He wrote many works, some of which are pre-served in the British Museum.

778, treating of the history of the middle ages. After this he turned his attention to more modern history, and published a series of biographical studies. Histoire des Archives du studies. Histoire des Archives du royaume de Danemark appeared in 1884, and various publications fol-lowed, notably Quarante recits sur

l'histoire de la patrie.
Jörgensen, Jens Johannes (b. 1866), a Danish author, born at Svendborg. He first gave himself up to the study of natural science, but soon abandoned this for literature. His first collection of poems appeared in 1887, Concection of poems appeared.

1890 by Un Etranger;

L'Elé, 1892; Le Regret de la Maison,

1894, cto. These earlier works are remarkable for the combination of poetic naiveté and realism displayed in them. After travelling in Germany and Italy, J. became a convert to

They include Beuron, Bogen om Rom, Pilgrimsbogen, etc. His later poems, too, are of a higher standard than those written in his early years. Amongst them are Confession, 1895.

and Poemes, 1898.

Jornandes, or Jordanes (fl. 550), an historian and ecclesiastic of the 6th Originally a notary at the century. Ostrogoth court in Italy, he became a monk, and finally Bishop of Crotona, though the last appointment is re-jected by some as unauthentic. His jected by some as unauthentic. His principal work is De Gelarum Origine et Rebus Gestis, the only source of information of the history of the Goths. The best edition is by Closs (1888). He also wrote another Latin histori-. istory

J. was original thought. See Stahlberg.

Jornandes, 1884. Jortin, John (1698-1770), an English church historian and critic, born in London of Huguenot parentage. He was educated at Charterhouse and Jesus College, Camb., graduating in 1719. In 1762 he became vicar of Kensington, and in 1749 was appointed Boyle lecturer. Subsequently he became a prebendary of St. Paul's and archdeacon of London. Amongst his principal works are: Miscellaneous many works, some of which are preserved in the British Museum.

Jörgensen, Adolf Ditlev (1840-99), a
Danish historian, born at Graaster,
died at Copenhagen. In 1869 he became director of the royal archives,
and in 1889 director of the Copenhagen institute and of three provincial institutions. His first publication

mis principal works are: Alisectianeous
collection and Modern; Remarks on Ecclesianded Mo

Sept. 1759, when a great eruption | Casaris Augusti, 1745; Herchenhahn, occurred. Has an altitude of 4315 ft. | Gesch. der Regierung Kaisers Joseph I., Josephat, see Barlaam and Josa- 1786-89.

PHAT. Josefstadt, a tn. of Bohemia, Austria, 11 m. N. of Königgrätz, and formerly a strong fortress. It is on

the R. Mettau. Pop. 5438.

Joseph: 1. Eldest son of Jacob and Rachel, and brother of Benjamin. His history, as conceived in the minds of writers of the 8th century B.C., is told with great detail in the Book of Genesis. The important points in it Genesis. The important points in it are his journey to Egypt, and the ensuing journey of the whole of the Israelitish tribes, his rise to supreme power in Egypt, and the taking of his bones to bury them in Shechem. The special connection of J. with Egypt is most important, and throws much light on the patriarchal history. 2. The husband of the Virgin Mary, spoken of in the gospels as the 'father' of Jesus. It is, of course, made clear that he was not the father of Jesus in the physical sense, but rather his guardian. The Church has, moreover, always held that he was never more than a guardian to Blessed Mary who remained Ever-Virgin. He last appears in the Gospel histories in connection with the going up of Jesus to the Temple at the age of twelve. From the fact that he is not mentioned in connection with our Lord's ministry, it has been gathered that he had died before this began. It is probable that he 'brothers' of our Lord were the sons of J. by a former wife. 3. Joseph of Arimathea, a rich Israelite of high rank, and possibly a member of the Sanhedrin or Great Council, who was in secret a disciple of Jesus until his crucifixion. He then went boldly to Pilate and obtained leave to take down the sacred body. This done, he interred it in his own tomb. 4. J. called Barsabas, surnamed Justus, chosen out of two candidates to fill the place in the apostolic band left vacant by the death of Judas Iscariot. His name does not occur again in the canonical writings.

Joseph, King of Naples, sec Bona-

PARTE, JOSEPH.

Joseph I. (1705-11), Holy Roman emperor, son of Leopold I., born in 1678. In 1687 he was crowned King of Hungary; in 1690 king of the Romans, succeeding his father as emperor and ruler of the Hapsburg demisions (1708) supported by Francisco (1708 dominions (1705), supported by England, Holland, and Savoy, he warred

Joseph II. (1765-90), Holy Roman emperor, son of Francis of Lorraine and Maria Theresa of Austria, born in 1741. He became King of the Romans in 1764, succeeding his father as emperor in 1765. In 1772 he signed a treaty with Russia and Prussia dividing Poland among the three. On his mother's death (1780) he came into possession of Hungary and all the hereditary dominions of Austria. In the Turkish War (1788-89) his general, Laudon, won several victories, but the result was un-successful. J. made many reforms, regulating the taxes and enforcing religious teleration, but he proved regulating the taxes and continuous religious toleration, but he proved over-zealous, and alienated many of his subjects. Thus attempts to correct abuses in the Roman Catholic Church caused a rising in Belgium, and the Hungarians opposed his proposal to make the German lan-guage universal. He was succeeded guage universal. He was succeeded by his brother, Leopold II. See Life by De Caracioli (1790), Cornova (1802), Brunner (2nd ed. 1885); Paganal, Hist. de Joseph II., 1843; Huber, Gesch. Kaiser Josephs II., 1792; Heyne, Gesch. Kaiser Josephs II., 1848; Ramshorn, Kaiser Joseph II. und seine Zeit, 1845; Schlitter, Pius VI. und Joseph II., 1894.

Joseph of Exeter (L. Josephus Iscanus) (R. about 1200), a mediaval Latin poet, native of Exeter. His most important works are: Panegyricus ad Henricum; De BelloTrojano (6 books); and Antiochus, a poem on the third Crusade, on which he accompanied Archbishop Bald-

win in 1188. Joséphine, Marie Rose (1763-1814). Josephine, Marie Hose (1763-1814), an empress of the French and first wife of Napoleon, born at Trois Islets, Martinique, her father being captain of the port of Saint Pierre. Her maiden name was Tascher de la Pagerie, and she first married the Viconte de Beauharnais, by whom the had a con Eugéne Viceror of she had a son Eugene, viceroy of Italy, and a daughter Hortense, afterwards Queen of Holland and mother of the Emperor Napoleon III. Beauharnais was guillotined during the Reign of Terror (1794), and two years later his widow married Napoleon Bonaparte. She exercised a great influence over the emperor, and at Luxembourg and the Tulleries successfully against Louis XIV attracted around her the most (Spanish Succession War). The allies were commanded by Prince Eugene and Marlborough. J. granted privileges to the Protestants. See Lange, Leben und Thaten des Kaysers Joseph Louis of Austria. See Aubenas, I., 1712; Wagner, Historia Josephi I.

(37 to after 100 A.D.), a celebrated Jewish historian (the 'Grecian Livy') and general, of both royal and sacerdotal lineage. He appears to have joined the sect of the Essenes, and spent three years with a hermit. Banos, in the desert, but in 56 he became a Pharisee. In 63 he a Pharisec. In visited Rome as deputy to Nero to procure the release of some Jewish priests, and succeeded through the influence of Poppæa. On his return he opposed the revolutionary spirit of his countrymen, but became governor of the two Galilees at the outbreak of war with Rome. In 67 he bravely defended Jotapata against the Romans, under Vespasian, but the latter was finally victorious. J. was saved for predicting that Vespasian should soon wear the imperial purple. He was kept for a time in honourable confinement, and then fought with the Roman army at the destruction of Jerusalem by Titus (70). His influence saved the lives of many of his Vespasian made him a full Roman citizen, and he adopted the name 'Flavius' as a compliment to the emperor. His chief works are : History of the Jewish War (from 170 B.c. to his own times), Tovdawy Aρχαιολογία (from the creation to 66 A.D.), Autobiography (English trans. by Traill, 1862), and a treatise Against Apion of Alexandria. See editions of the Greek text by Niese (1885-95) and Naber (1888-96); Eng-(1885-95) and Naber (1888-96); English version of Whiston (1737), relative, J. became involved in the revised by Shilleto (1889). Consult Van Hoevell, Flavius Josephi Fila, 1835; live a life of exile in Brussels and Birwald, Josephus in Galilau, 1877; Dresden, Hischief novels are: Jung; Kreukel, Josephus und Lukas, 1894; The Last Bâtary; The Bohemians Olitzki, Flavius Josephus, 1894; Mez, Die Bibel des Josephus, 1895; Druger, jabud 100 volumes.

The Last Bâtary; The Bohemians are comprised in Brussels and the Last Bâtary; The Bohemians of the Last Bâtary; The Bohemians are comprised in Bibel des Josephus, 1895; Druger, jabud 100 volumes.

Josephus, 1897; Flemish musical composer, born near Flemish musical composer, born near

Joshua, The Book of, the first book 50 secular pieces, and upwards of 150 of the Former Prophets, narrates the motets. For a complete list see of the Former Propinets, narrates the mottets. For a complete strength of the invasion and conquest of Eitner's Bibliographic der Musiksion of the land among the tribes (chaps. xiii.-xxiv.). The book ends yeith two addresses delivered by Germany. From 1826-35 he was a Joshna a little before his death. It schoolmaster at Berlin, and from was once taken for granted that the 1835-60 held a similar position at

1859; and Lenormand, Memoirs of book was written by Joshua himself, the Empress Josephine, 1904.

Josephus, Flavius (Φλάβιος Ἰωσηπος) it speaks of events that happened in but this is obviously impossible, since it speaks of events that happened in much later times. It is closely connected with the books of the Pentateuch, forming, indeed, their complement. They are occupied chiefly with the prophecies of the conquest of Canaan, which Joshua narrates. Recent criticism has made it clear that the B. of J. was compiled from the same sources and by the same steps as the other books of the Hexateuch (q.v.). In its present form it probably goes back to the 5th cen-

tury B.C. Josiah (c. 639-608 B.C.), son of Amon and King of Judah. He came to the throne at the age of eight, but nothing is told us of the earlier part of his reign. In the eighteenth year of his reign, however, occurred the finding of the Book of the Law (see DEUTERONOMY), which inaugurated DETTERONOMY), which inaugurated a new era of reform. For many years after this J. ruled in peace and prosperity, but in 608 Pharaoh Neco II. came N. to press his claims in the partition of the Assyrian empire. J., about whose foreign policy we are told little, attempted to stop his progress with an army to stop his progress with an army, and *

(1796-1865),

born at Torda in Transylvania. He wrote a series of romances after the style of Sir Walter Scott, which aimed at a high moral standard, though enlivened with occasional humorous touches, and achieved great popu-larity. J. became involved in the

1785.

Nun, was in his early days an attendant on Moses, greatest masters of the Netherland and on his death became leader of school. For some time he was chapefthe Israelites in the conquest of master at St. Quentin, and from Canaan. He is said (Num, xiii, & 1471 to 1484 he was musician at the and 16) to have been of the tribe of papal court of Sixtus IV. He was re-Ephraim, and at first to have borne, garded as the greatest modern comthe name of Hosea. He died poser of the day, and gave a great im-(Josh. xxiv. 29 fl.) at the age of 110, petus to music in Italy. His printed and was buried at Timpath-Serah.

Joshua.

Frankfort-on-Main. His chief work man commanding the respect of his is Geschichte der Israeliten, and he foes.

Also published Geschichte des Judentums und seiner Lekten, and edited a German translation of the Mishnah, 1823-34. See Zirndorf's Isaak Markus Jost, 1886.

Jostedal, a tn. in Norway, about 110 m. N.E. of Bergen, at the eastern base of the plateau of Jostedalsbrä, the largest glacier-field of Europe.

Jötun (plural Jötuns), in Norse mythology, the name of certain mythical beings hostile to men, to Thor, and to the beneficent Evir. These 'giants' or 'devourers' are types of the untamable, destructive Dugald Stewart (1826), and Reid forces of Nature, Loki being the (1828-36); Cours de droit naturel father of the mightiest and dreaded of the race. Their abc Jötunheim or Utgard, desert Vie,1876. in the far N., and they figure

in the Thorpe, Keyser. 1841; ݢ Mallet, I

Jouber French 1 and later professor at the Jesuit College at Toulouse, till about 1776. Going to Paris (1778) he became a member of the brilliant literary circles there, and was intimate with

Fontaine. Chateaubriand published intended for 1838 (new ed. y de Raynal).

See Condamin, Essai sur . . . Joubert, 1877; Arnold, Essays in Criticism, 1865; Les Correspondants de Joubert,

Joubert, Petrus Jacobus ('Slim Piet') (c. 1831-1900), a Boer general an of 1

of in the Civil War he became a successful farmer and a prominent citizen of the Transvaal, being acting president (1874) during Burgers' visit to Europe. J. went to England with 89, a famous English experimental Krüger (1878) to protest against the philosopher, pupil of Dalton, but proposed annexation of the Trans-largely self-taught. His first disvaal, proclaiming its

(1880) with Krüger at He won the victories of Ingogo, and Majuba Hil. 1893 J. convenient war with England. In 1893 J. convenient tested the presidency with Krüger, and scientific unit of work in practical losing by only about 665 votes. In time to the military organisation of his country, and on the outbreak of the Boer War (1899), commanded the army in Natal. He besieged General

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 ntered under id became teacher there from 1817-22. He helped to edit the journal Le Globe, and was professor at the Collège de France (1832), leaving through ill-health to become librarian at Paris

University (1838). J. made Scottish philosophy known in France. He always kept a sharp distinction between psychology and physiology. His works include translations of

Vie, 1876.

cois Dorothée, Marquis de (1751-1832), a French engineer and inventor of insteam navigation, a captain of infantry before the Revolution. He conceived the idea of applying steam to navigation on seeing a fire-engine at Chaillot (1775). His first attempt was on the Doubs (1776), a more successful one being on the Saone (1783). Through lack of means and influence he lost the fame which Fulton won (1803).His Charles-Philippe was launched on the Scine (1816), and he published Les Bateaux à Vapeur. Academy recognised his rights (1840), and Fulton proclaimed them in U.S.A.

See Prost, Monograph, 1889.
Jougs, Juggs, or Joggs (Lat. jugum, yoke), a form of pillory used in Scotand the Low Countries as a punishment for ecclesiastical minor civil offences from the 15th to the 18th centuries. It consisted in a hinged iron ring or collar for the delinquent's neck, and was chained to a pillar or wall in some public place. An example remains at the churchyard gate of Duddingston near Edinburgh.

Cf. Brank, Pillory, and Stocks. Joule, James Prescott, F.R.S. (1818-

1896 he defeated Jameson at the time of his great raid. He devoted much the 'ampère,' or unit current flowing time to the military organisation of through the 'ohm,' or unit resistance, his country, and on the outbreak of equal to about 10,000,000 ergs (see ELECTRICITY, HEAT). J. is considered one of the founders of the theory of White in Ladysmith, after which his the correlation of forces, and in 1847 health failed, and he retired to Pre- stated the doctrine of the 'Conservat oria. He was a brave and upright tion of Energy.' Much of his time possible accuracy the mechanical equivalent of heat. See Nature, Oct. 1882; Reynold's Memoir, 1893; Scientific Papers (collected by the Physical Soc., vol. i. 1884, vol. ii. 1887.

Jourdan, Jean Baptiste, Comte

(1762-1833), a French general, served in America, and rose to be head of the army of the North (1793), defeating the Austrians at Waltignies. In 1794 he won the victory of Fleurus, driving the Austrians beyond the Rhine, and besieging Mainz (1795). After this he was less successful, being defeated by the Archduke Charles at Amberg and Würzburg in 1796, and again in 1799 whereupon he resigned his command to Massena. He defended himself in Operations de l'Armée du Danube . . ., 1799, and became famous as framer of the conscription law (1798). Under Napoleon he became Director of Napoleon he became Director of Affairs in Piedmont in 1809; marshal in 1804, and governor of Naples in 1806. He accompanied King Joseph to Spain in 1808. Though created a peer by Louis XVIII. in 1819, he heartily supported the revolution of 1830. His last years were spent as governor of the Invalides. See De Courselles. Diet des Généraux Erans. Courcelles, Dict. des Généraux Français; Michaud, Notices historiques sur le Maréchal Jourdan...

Journal, in machinery, that portion a revolving shaft which is in of a revolving shaft

contact with the bearings.

Journal, Le, a Paris daily paper, literary and artistic, founded in 1892 Fernand Xau, not avowedly by political. Henri Letellier has been director since 1899. Among its con-tributors may be mentioned Anatolo France, G. Hanotaux, A. Berget, E. Gautier, Dr. Doyen, J. Bois, and P. Ginisty. Its offices are at 100 Rue de

Richelieu.

Journal des Débats, Le, a Paris daily Journal des Benais, 10, it Paris unity literary paper, of moderate Republican politics since 1870. It was founded by Beaudoin (1750), to report the essions of the National Assembly. It was acquired by the Bertin family (1799), confiscated by Napoleon (1811-14), and then recovered by the Bertins. Etienne de Nalèche has been director since 1895, and made it an evening instead of a morning paper.

Among famous contributors have been P. Bourget, E. Faguet, J. Lemaltre, G. Berger, G. Perrot, E. Rostand. The offices are at 17 Rue des Prêtres, Saint-Germain-l'Auxerrois.

Brêtres, Saint-Germain-l'Auxerrois.

since 1843 was spent in determining by different methods with the greatest possible accuracy the mechanical equivalent of heat. See Nature, Oct. Liberty. How many shattered repulses Reynold's Memoir, 1893; Editors cannot its walls and narrow Scientific Papers (collected by the streets tell of! How many dazzling Physical Soc., vol. i. 1884, vol. ii. 1887. memory from Dr. Johnson and Fielding at one pole to Archibald Forbes and G. W. Steevens at the other, or from the Letters of Junius, and the polemics of Addison and Steele to the humblest 'story' of a modern re-porter-journalist. It began with literary aspiration; but the publishers have vanished to other quarters; it ends with the terse descriptive recital of current events, 'hot' from the source with 'splash' headings, and set in a framework of pill and tonic advertisements. But it is rather its accidental development that is the strange part of the history of English To modern ideas it is incredible that men did not seem to thirst for news; that it was not earlier realised what a weapon against political tyranny, publicity would prove. Hence the germ of J. in pure and quasi-literary efforts, redolent of opinion and often guiltless of fact. Its fortuitous development is seen in the very anomaly of the genesis of the freedom of the Press. No formal assertion of such freedom is to be found. except in the stately lines of the Arcopagitica of Milton. Its institution was the result of the refusal of the Commons in 1695 to renew the Licensing Act which, in its turn, was an autocratic device consequent on the development of the art of printing. The newspaper proper begins with the development of the news letter, often in MS., which purveyed the 'chit chat' of the Capital much in the manner of the modern London or Paris letters; into a single printed sheet, posted on a fixed day in the sheet, posted on a nace was week, and circulated in the provinces under the name of the Weekly News. This paper was and before the mission of theS ..

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sion with news publishers tour hours Journalism, the common history.

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Journal de St. Petersbourg, a polition to censor-and there was a reversible to consor-and the consor-and

inaugurated an era of discussion of proprietors of the Morning Herald inaugurated an era of discussion of public questions in the newspaper Press, which ultimately resulted in that Press attaining the virtual position of the Fourth Estate of the Realm (see Estates of THE REALM). The age of Anne has been well described as the classic age of English literature and its influence on the literature, and its influence on the newspaper Press was no less marked than in purely literary circles. Papers like the *Tatler* and the *Spectator*, filled with the published wit of Addison, Pope, Steele, and Swift, burked politics altogether, in favour of satires on the transient, social foibles of the age. But there were a few other papers, like the Whig Examiner and Defoe's Review of the Affairs of State, which drew their breath of life from the atmosphere of politics, and with the beginning of fearless and scurrilous criticism of public men in articles either inspired or even actually written by some of the foremost men in the state like Bolingbroke, the whole character of newspapers underwent a change. Henceforth they were a power to be reckoned with, which no bureaucratic action could repress, which constituted itself the guardian of public liberty, and which was courted directly or indirectly by It was the ministers themselves. ministers themselves. To was sold the Times, see under TIMES, and to practice of reporting the speeches of of the Times, see under TIMES, and to the opposition of the day that paved a fuller description, reference may be the way for publicist articles in the made to Pebody's English Journalism the made to Pebody's English Journalism and the Pebody English Pebody English Journalism and the Pebody English Indiana and In Press, for the reports were the ma-terial upon which they were neces-sarily founded. In constitutional sarily founded. theory it was a gross breach of parliamentary privilege to publish debates or discuss political questions in the Press, but by surreptitious means, reports, meagre it is true, crept into the papers, and before the middle of the 18th century, the Press had be-come firmly established as the backbone of Ministerial or anti-Ministerial support. The triumph of John Wilkes and the North Boston, marks a well-known epoch in the annals of Press criticism, and vindicated the right of the Press to extend its criticism to the acts and words of the sovereign himself. The Morning Chronicle is generally credited with being the first paper to employ a regular staff of parliamentary reporters who actually took their place in relays in the gallery of the House, and according to Charles Pebody's History of English Journalism, James Perry, its editor, practically created the profession of J., though certainly not as we know the the state of the profession of J., though certainly not as we know the control of the state that profession to-day. Developments in J. proceeded apace with the organ founding of the Morning Post in 1772, enterpthe Morning Herald, The Courier, The fitting Sun, and the Anti-Jacobin, before the early expiration of the 18th century. The utmos

established correspondents in all the chief capitals of Europe and big towns of Great Britain, and organised a system of expresses for the speedier transmission of news. Probably the rivalry between the Morning Chronicle and the Times, under the proprietorship of the famous John Walter, did more for the progress of English newspaper J. than any other event. Each paper was constantly striving to surpass the other by the introduction of some novel feature. 'leading article' became a work of art and no less a powerful influence in the interpretation of public opinion than a source of lively interest to readers in general. Coleridge, Peter Fraser, and John Sterling, were among the most notable writers who set the earlier style of 'leaders,' and though the daily newspaper Press has not been remarkable for attracting the most distinguished writers, it has been the Mecca of many a leader-writer of astonishing powers of pungent criti-cism. John Walter's adoption of printing by steam machinery in place of the slow system of printing by hand set the Times on the high road of a successful commercial and journalistic career, that for long was the envy of the Press world. (For the history of the Times, see under TIMES, and for

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prestige it seemed in the c. es of the civilised world as the authoritative expression of national opinion, fully justified Archdeacon Denison's aphorism that 'if Scripture said one thing in England, and the Times newspaper another, five hundred out of every five hundred and ten people would believe the Times.' It was fortunate, however, and in a less degree is so in these days, in generally being able to command occasional contributions or letters from the most dis-tinguished men of the day upon matters of controversy or intense public interest. The history of the Times is, indeed, that of English J.,

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tiques and articles upon almost every its ruthless exposure of underlying conceivable topic of social life, literal crude inequalities; and it has left its ture, and art, of George Augustus Sala, may almost be said to constitute the breaking point with the early and mid-Victorian methods of newspaper J. The trenchant, vituperative, and slashing style, long becoming obsolescent, received its death-blow, not only from the keener public interest felt in matters outside mere politics, but from the reflection in the papers themselves of the greater culture and intellectual range of the people them-selves. It is often said that modern J. has led public opinion, but it seems truer to say that it has moulded it by enlisting in its services a greater proportion of the intellectual force of the country than any other profession or circle.

But the modern J. also has its personal note, and that personal note is its outstanding characteristic. But it is a different form of intimacy to that of the letters of Junius, or the fulminations of John Sterling of the 'Thun-derer' (the Times). This is essenti-ally the age of what is known as the 'human document.' With all their precision of diction and close adherence to classical models, there was in the J. of fifty (or even less) years ago, a marked conventionality of tone. us that tone seems to have been stilted and even 'priggish.' People generally, and writers no less, did not so much give free play to individual ideas, as present everything in the form of independent or external phenomena, and having no relation to human sympathies. It required the free play of by the looking

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· ost every only to make art generally, and the art of J. in particular, conscious of itself, but to make criticism, which in its wider sense is the rock-bottom of J., really sincere. It was the stereo-typed conception of that anomaly, the British constitution, which sounded

mark on J. The progress of modern J. is a reflection of the restless and searching inquisitiveness of the age. The ramifications of the newspaper Press into every department of lifeare bounded by nothing but the discretion of its personnel and the law of libel. Perhaps, even in the later Victorian era, when monopoly and censorship were long-forgotten relics of the past, nothing existed to fore-shadow the methods of the new J. smidow the interious of the new visit has been identified with the name of the late W. T. Stead. Big London dailies, which in that era were marked by a nompous dignity of style, are fast yielding before the wave of sensationalism. Sensationalism is the life-blood of the halfpenny dailies and the majority of the Sunday papers, and may not inaptly be regarded as an antidote to thought, a narcotic for the 'nerves' engendered by business competition and socialist criticism. For Socialism and all it implies in the shape of social unrest seems, with the co-operation of industrialism, to have divided J. into two definite streams, the one intellectual, instructive, challenging, the other entertaining and ephemeral. The papers that advance any other than an orthodox party creed, are not to be found among the London dailies. The personal views London dailies. The personal views of a publicist, that creature whom Oscar Wilde stigmatises as a man who bores the community with the details of the illegalities of his private life, are no longer allowed to weigh with the proprietors to the detriment of the revenue from advertisements. Competition is keener than ever, and success is only to be gained in J. by satisfying the public taste. If a par-ticular legislative proposal is exciting controversy, a newspaper campaign white hea. t dies on the don heap of things forgotten. The modern craving for a paper that shall be readable in a limited space of time by a British constitution, which sounded the keynote to every publicist and public pressed for time, necessitates political journalist of the Victorian dera; that constitution 'which,' says of news in attractive form with 'scare' headlines, and frequently a precis in practical side, looks such a magnifical ended type arranged in paragraphs, cent organ of progress and virtue, So great is the pressure on space in a seen from the speculative side—with London hallpenny paper, and in a seen from the speculative side—with the convenience its lors of facts of the second degree in a require name that seen from the speculative side—with its compromises, its love of facts, its borror of theory, its studied avoidance of clear thoughts, . . . looks . . . a colossal machine for the manufacture of Philistines. No more virifying in fluence on the social life of the community was ever exerted than by scientific socialism with its unemoor in the Bankruptey Court. One result in the Bankruptey Court. One result of modern methods in J. has been to make it difficult to say in what exits frequently wild paradoxes, and

tion of a newspaper is to record news. If that were all, any company with capital at its back could successfully launch a new paper. But the bounds of modern J, are set by nothing short of the potentialities of human in-genuity in the graphic display of matters of current interest, to each of which is to be assigned no more space than is warranted by its relative im-portance in the eyes of the reader. For it is no longer the editor and contributor who decides what it is that the public shall read. The public calls the tune, and it rests with the newspaper accurately to gauge precisely how the inarticulate demand of the reader may best be met. Different classes of readers must be catered for in dif-ferent fashions. The *Times* circulates essentially among the wealthy and Conservative elements, and hence something of old conventionality still permeates its tone and make-up. But the halfpenny Press is intended for the 'man in the street,' that nonentity who in the bulk yet forms the backbone of public opinion; and success in these journalistic circles can only be attained by playing up to the reader's political prejudices, or by enlivening the grey road of his daily toil by 'stories' of human interest brightly told, and, above all, accounts of murders and murder trials and and in a manner of speaking, is almost the hearings of c doings of rival clubs chronicled

racing intelliger
'tips,' and a 'magazine' page or serial tale or both for home consumption. With these elements in common the majority of English daily papers do, however, undoubtedly each possess distinctive characteristics, though these are at bottom due to political colour. For example, one paper may lose no opportunity of pointing a moral of social reform; another of blowing the trumpet of Imperialism (q.v.). With the development of democracy it is not surprising that the newspaper Press should have become definitely the mouthpiece of public opinion, for there could exist no other adequate means of expressing that newspaper journalist, the 'nose for opinion. The oft-repeated cry against the 'tyranny of the Press' seems, no specialised knowledge, though the therefore, to be based on a misappre-failures of other professions drift in hension; the fault, if there be one, is numbers into all grades of J. Such with the public which makes the profits of the newspapers, not with the papers which interpret its will.

If modern J. has, as it has been said, the papers that leader of more truly become 'the leader of movements and the pleader of earnest and he must contrive to make that causes ' where before it produced but a dry record of facts, it only does so because the brains of its followers from the foregoing observations it may be readily inferred that the late, and how to 'drive home' that duties of a journalist have become

which before was nebulous, inchoate, and unvoiced. One result of the progress of modern J. is the assignment to definite and separate spheres of J. proper and literature. The latter, no doubt, is present in the shape of clever reviews of new books (the appearance of which in itself is an event), turn-over articles, and a 'literary page' like page 4 of the Daily Mail. But these articles generally relate to matters of current and all-absorbing public interest, and literary form in them is entirely subordinate to the purpose of the article, which is primarily to perstude. The literary aspirant must seek his opening, not in the roar and hurry of J., but in the calmer atmosphere of magazines and reviews. In this latter kind of periodicals there has been a striking advance which finds its

of Impre mode of . Wilde, o Griffiths

'Asiatic prose,' who 'delighted in pic-torial epithets and pompous exaggerations,' and a style so gorgeous that it concealed the subject about which it was concerned. The term 'Journalism' is admittedly a wide one, ne of degree. Anything that is written

rmane to some event or incident in periodical that belongs to the class so-called 'public journals' is an effort of J. But the main-spring of J. proper is news, and periodicals like the Spectator and Saturday Review occupy a position midway between J. proper and literature. A weekly periodical cannot be termed a journal without involving almost a contradiction in terms; and although weeklies, like the above, often conterms; and tain a résumé of recent news, the presentation of news is with them a matter of secondary importance. The writers of the often scholarly erudite or highly scientific articles produced in such periodicals do not require that essential to success of the modern

o send him.

language exactly appropriate to the incident that forms its subject-matter.

Journalism

world and men the more successful is he likely to be. The most liberal education is useless without the knack of getting news and presenting change of getting news and presenting that news in accurate, graphic, and convincing form. The goal of a journalist is, above all, to bring off a 'scoop' for his paper, with a sensational stunt.' A 'stunt' is apparently a term cognate with 'astounding' or stuming, and denotes a sensational 'story'; a 'scoop,' means the publi-cation of a particular item of new by one paper before its appearance in the columns of any other rival paper. Among the best scoops of more recent years may be mentioned that of the Daily Mail war correspondent, Mr. Edgar Wallace, who secured for his paper the first intelligence of the conclusion of peace at the close of the Boer War of 1900, which feat he accomplished through the instruaccomplished through the instru-mentality of a soldier and a hand-kerchief signal and a previously arranged code-telegram. Hardly less notable was the Observer's intimation in a Sunday special edition of M. Bleriot's successful flight over the Channel in an aeroplane. The name of the celebrated De Blowitz the of the celebrated De Blowitz, the of the celebrated De Blowitz, the Anglo-French journalist, is almost a synonym for sensational journalistic feats, and his enterprise in getting the full text of the treaty of Berlin of 1878, published in the Times, synchronously with its signature in Germany will long live in newspaper annels. A clever soon was accom-A clever scoop was accom-recently by Mr. Martin annals. plished O'Donohue, the war correspondent of the Daily Chronicle, who wired a full and vivid account of the rout of tun and vivid account of the rout of the Turkish army by the Bulgarian army at Lule Burgas. No less re-markable was the publication a day later by the Daily Telegraph of a full descriptive account of that defeat extending to some seven columns of wired copy.

In the stress of competition it is not surprising that the methods and devices of some journalists to secure and to transmit news do not always command approval. One war correspondent at the time of the Boer War unostentatiously appropriated the horse of an army officer in default of one of his own; and again the reputed pioneer of the new J., Mr. W. T. Stead,

extraordinarily exacting. The greater, the School of Journalism of the Unihis knowledge and experience of the versity of Missouri, where a range of versity of Alssour, where a range of subjects is taught embracing sociology, economics, political science, English history, together with the arts of reporting, editorial writing, magazine J., and newspaper administration. English people seem to rely, not without some justification, on a tolerable public school education and the rough school of experience. and the rough school of experience. Specialised knowledge may no doubt be acquired in a school, though a working knowledge of the application of economic and sociological principles can be acquired by experience and the faculty of keen observation; but that wider general knowledge of the way to handle all sorts and conditions way to handle an sorts and conditions of men, and to extract the quint-essence of interest in all manner of events, is only to be learnt by experience. It is said by a competent authority that American J. has exercised considerable influence on English J. The hunt for men with 'live' ideas and methods is essen-tially an American habit. It may not tially an American habit. It may not be far from the truth to say that America is the home of modern J., for whereas in England the J. of the cheaper dailles, and, indeed, the descriptive articles of most of the penny dailies and practically all the Sunday papers, is a bastard offshoot of pure literature, and in America J. was a spontaneous growth, and litera-Mars spontaneous grown, an incar-ture a late and poor development. Moreover, the absence of taxes on advertisements and paper, and of monopolies, conduced to the more rapid production of newspapers. Above all, American J. set the fashion of 'splash stories,' and 'scare 'headlines, a fashion eminently in harmony with the highly strung, neurotic, national temperament. Some of the English cheaper papers systematically ape the style, and apparently it pleases the masses. Yet English sensationalism is not imbued with anything like the shricking personal note that is in vogue in America. English J. respects the privacy of the home, the sanctity of class distinc-tions, and reverence for the national church, but nothing is sacrosanct to

pioneer of the new J., Mr. W. T. Stead, is said to have manufactured evidence for the purpose of emphasising his crusade against what is known as the Hearst, a man whose polley may be White Slave Traffic.' But that Mr. readily inferred from his now prostend performed a great public service in that cause cannot be gainstead. In regard to the training of a chronicle them. In France the informalist England is behind America, fluence of American methods has been in that she has no schools of J. like no less felt than in England. But the

fine literary tradition of French J. still lives in the signed article, and although the transition from literature to J., or in other words, from opinion to news, has resulted, as in England, in the mere co-ordination of politics with other items of intelligence, yet the frequent appearance of signed articles de fond by some of the most remarkable literary men of the age, indicates not only the vitality of the national literary character, but the greater importance attributed by the French people to the individu-ality of the journalist himself. In one respect the tone of French newspaper J. is reminiscent of the vigour of the earlier English publicist articles, and the very fact of the articles being signed has been frequently productive of duels, libel actions, and imprison-As befits a nation which can lay claim to being the home of drama, the highest-salaried member of the staff of a French newspaper is the dramatic critic, and his influence and that of literature in general on the Press is sogreat, that even the cheaper papers like Le Petit Journal and Le Petit Parisien contain excellent literary and dramatic criticisms. other respects the general conduct of a French newspaper and its hierarchy of editors and sub-editors, special correspondents and reporters, are not dissimilar to our own. See Modern Journalism by a London Editor. See ADVERTISEMENT.

Journalists, Institute of, The, was established in 1889, by conversion of the National Association of Journalists, founded in 1884, and incorporated in 1890. Its objects are to devise examinations and practical tests for candidates for membership, to keep up a high standard for journalism, and promote the interests of journalists and journalism in every way. Annual Conference was held at Brighton (1912). There are about 2500 members, with a London Hall at Tudor Street, E.C.

Joust, see TOURNAMENT. Jouvency (or Jouvancy), Joseph Pierre (1643-1719), a French Jesuit and humanist, professor of rhetoric at Caen, La Fleche, and finally at Louis le Grand Collège, Paris. He was summoned to Rome, 1699, to assist with a History of the Jesuits, of which he wrote vol. 5 (from 1591-1616), which appeared in 1710, Other works with a History of Livery Derivis were editions of Juvenal, Persius, Terence, Horace, Martial, and Ovid; De Ratione discendi et docendi, 1692 (trans. by Ferté, 1892). See Moréri. Dictionnaire Historique, and Quérard, La France Littéraire.

Jouvenet, Jean (c. 1644-1717), a Honorius. J. was defeated French painter, son and pupil of Laurent J. the Younger (1609-81). Roman prefect Dardanus.

Going to Paris in 1661, he worked under Lebrun at Versailles. He became member of the Academy of Painting (1675), professor, director, and finally one of the four permanent rectors (1707). On Lebrun's death he became head of the French school.

necame nead of the French school.

Among his chief works are; 'La Guérison du paralytique,' 1673; 'Esther devant Assuérus,'' La Pêche miraculeuse,' 1706; 'Descente de Croix,' 1697, and others in the Louvre.

The 'Magnificat' and 'Visitation de la Vierge,' in the choir of Notre-Dame, were neatted with the left hand after. were painted with the left hand, after his stroke of paralysis, 1713.

Leroy, Vie, 1859. Jove, see JUPITER.

Jovellanos (or Jove Llanos), Don Gaspar Melchior de (1744-1811), a Spanish author and statesman, magistrate at Seville and Madrid. he shared in the disgrace of Cabarrus, but Charles III. made him minister but Charles III. made him minister of justice in 1797. Imprisoned in Majorca through the intrigues of Godoy, on the latter's fall and the revolution of 1808 he returned and became a member of the Central Junta. He wrote the tragedy El Pelayo, 1769; the comedy El Delincuente Honrado, 1773; the epic Mejico Conquistada; lyrics, Memorias Politicas, 1801: and A Mis Compat-Politicas, 1801; and A Mis Compat-riolas, 1811, a defence of the Junta and himself against suspicions of treason.

tain of the life-guards under Julian, accompanying him against the Persians. J. escaped with the army to the Tigris on the death of Julian (363), and was soon chosen as his successor. He was obliged to consuccessor. He was obliged to conclude a humiliating peace with the Persian king, Sapor (or Shapur), ceding various districts and fortresses, including Nisibis. He proclaimed Christianity at Antioch, upheld the Nicene Creed against the Arians, and restored Athanasius to the see of Alexandria. The manner of his death Alexandria. The manner of his death Alexandria. The manner of his death at Dadastana is uncertain. See De la Bléterie, Hist. de Jovien, 1740; Gibbon, Decline and Fall... (chs. xxiv., xxv.); Amm. Marcellinus, Xxv.; Themistius, Or., v. and vii.

Jovinus, a Gaulish usurper, perhaps grandson of Jovinus (d. 379), and Roman general under Honorlus. In

Roman general under Honorius. In 1411 A.D. he assumed the imperial title, winning part of Gaul, but was attacked by the Franks and Visigoths under King Ataulphus, allies of Honorius. J. was defeated by them at Valence (412), and executed by the Roman prefect Perdague.

Jowett, Benjamin (1817-93), a great English scholar and theologian, educated at St. Paul's and Oxford, becoming fellow of Balliol (1838), tutor It rises in the N., flows E. and S.E., (1842-70), and finally master (1870), then S., finally draining into the He was regius professor of Greek at Oxford (1855). One of the greatest Juba I., King of Numidia, an ally construction of the greatest of Powney whom he supported New was regius professor of Greek at Indian Ocean. Length over 1000 m. Oxford (1855). One of the greatest Juba I., King of Numidia, an ally moral teachers of his ago, he became of Pompey, whom he supported intimate with Stanley, joining him against Cæsar. He was defeated at and Tait in advocating certain university reforms (1846). One of the Broad Church school, his Epistles of St. Paul (1855) and a contribution to Essays and Reviews (1860) roused a storm of criticism and hostility. His great work was a translation of. Plato's Dialogues (1871). There followed a translation of Thucydides (1881), of Aristotle's Politics (1885). His College Sermons were published in 1895. See Abbott and Campbell, Life and Letters of Benjamin Jovett. 1897; Tollemache, Benjamin Jowett, 1895.

Joynson-Hicks, William (b. 1865), an English solicitor, assuming the and her name 'Joynson' on his marriage science. (1898). He was M.P. (Unionist) for Jubal N.W. Manchester (1908-9), contested Africa, Sunderland (1910), and was M.P. for Brentford (1911). He takes much interest in philanthropic work, and is honorary treasurer of the Y.M.C.A. He has published *The Law of Traction* on Highways and temperance pamphlets. He is chairman of the Automobile Association of the United

Kingdom.

1894.

Juan, Don, see JOHN OF AUSTRIA. Juan Fernandez Islands, a small volcanic group in the S. Pacific Ocean belonging to Chile, situated about 380 m. W. of Valparaiso. The chief island is Mas-a-Tierra, 13 m. long and im, with con bline of rugged rocks, with a rich wer tation. Others include Manual norm and 11 Zunque, the Intter 3225 ft. in height.

Juan Manuel, see Manuel, Juan.
Juarez, Benito Pablo (1806-72), a
Mexican statesman, born at San
Pueblo Guelatao, Oajaca, of Indian
parentage. Called to the bar in 1834 and made a judge of the civil court in 1842, he became governor of the state of Onjaca in 1847, which post he filled till 1852, greatly improving the provincial conditions during that time. He was exiled from Mexico in 1853, but returned two years later and joined Alvarez and the revolu-tionists. In 1857 he was made chief justice and secretary of the interior, nustice and secretary of the interior, pook of the U.T. known also as Little and was finally elected president in Genesis. The Apocalypse of Moses, 1858 in succession to Comonfort. The Testament of Moses, and The Life He retained this position till his of Adam. The author was a rigid death, and his vigorous and liberal Pharisee of the time of John Hypolicy was of great benefit that the succession of the time of John Hypolicy was of great benefit to the succession of the time of John Hypolicy was of great benefit to the succession of the time of John Hypolicy was of great benefit to the succession of the U.T. known also as Little for the U.T. kn

suicide.

Juba II., son of the preceding, made King of Numidia about 30 B.c., and transferred to Mauritania in 25 B.C. by the Emperor Augustus on Numidia being made a Roman province. He was noted as an historical and general writer and wrote works on painting, botany, grammar, the theatre, etc., and histories of Rome, Africa, Assyria, and Arabia, none of which are extant.

Jubal, or Jabal, son of Lamech and Aduh. In Gen. iv. 21 he is recorded as the inventor of the harp or lyre, and hence the discoverer of musical

Jubaland, a region of British E. Africa, adjoining the Juba R., the northern and western boundaries of which are undefined. The cap, is Ostrich feathers, chony, Kismayu. gums, and manilla fibre are among the principal exports.

Jubbulpore, see JABALPUR.

Jubilate, the 100th Psalm, used as the second canticle in the morning

service of the Church of England.
The name signifies 'Shout ye.'

Jubilee, The Year of, was a peculiar
custom among the Hebrews, in which
every fittleth year all land was restored to those original owners who had lost it within that period. who were in a state of poverty, having had to hire themselves out, were released from their bondage, and all debts were remitted (Lev. xxv.). The jubilee was proclaimed at the close of harvest, on the tenth day of the seventh month, the day of atonement, when the yöböl (horn) was counted. The Depure Carbelle, was sounded. The Roman Catholics have borrowed this word from the Hebrews in their celebration of ordinary or extraordinary jubilee. The first jubi-lee was inaugurated by Pope Honi-face VIII, in 1300, when he issued a bull granting plenary indulgence to all pilgrim visitors of Rome, should they fulfil certain conditions.

Jubilees, The Book of, anapocrypha book of the O.T., known also as Little

the views of

his party. In entire oppc " Helienist party, the Pha draws a sharp line of between Jews and Gent

served in heaven by the angels, and so would be kept throughout eternity. The author sets himself in every way to glorify Judaism, and insists on the rigid observance of its ceremonial. The work receives the name B. of J. because it calculates periods of time in jubilees, periods of forty-nine years, and lays stress on the mystical importance of the exact calculation of weeks and jubilees, with the ever-recurring number seven. The work was written in Hebrew, but was early translated into Greek, and thence into Latin and Ethiopic.

Juby, Cape, on the W. coast of the Sahara, Africa, a low sandy point opposite the island of Fuerteventura,

which is one of the Canary Islands.
Jucar, or Xucar, a Spanish riv. in
New Castile and Valencia, rising in
the Sierra Albarracia. It is about 300 m. long, and follows a circuitous course, irrigating rice and other plantations, and entering the Mediterranean at Cullera.

Judga, the region in the S. of Palestine occupied by the Jews who returned from the Babylonian exile during the periods of Persian, Greek, and Roman supremacy. Its limits varied at different times. Josephus says (Bell. Jud. iii. 5) that it extended from Annath, called also Borceos, on the N. to the village of Jordan on the S., from Joppa on the W. to the Jordan in the E. St. Luke, however, frequently uses the title to include the whole of W. Palestine.

Judah, according to the Genesis narrative, was the fourth son of Jacob and Leah, born at Haran in Mesonotamin. The tribe which here

the twelve, and from

signified, according to the ethnic in-terpretation now so popular, by the incident of J. and Tamar. The capital of Judah was Hebron, and its terri-tories stretched from Jerusalem on the N. to the territory of the Amale-kites on the S., and from the Dead Sea on the E. to the Mediterranean on the W. Jerusalem was taken by David and formed a new capital.

Judah ben Samuel ha-Levi (c. 1085-

cular nature, and 300 poetry represents both and the aspirations of In him the Jewish-

sists upon the eternal nature of the Spanish renaissance of poetry reached Law. Before the revelation of the its loftiest form both as regards Law to man, it had ever been obsubject-matter and mobility of conception, and he may be justly considered the greatest medieval Hebrew poet. According to tradition he met his death on a pilgrimage to Jeru-salem. Besides his poems, he wrote an apologetical work in Arabic, entitled The Book of Argumentation and Demonstration for the Defence of the Oppressed Religion, known as Chozari. See Kaufmann's Jehuda Halevi, 1877.

Judaisers, a sect in the early Christian church to which allusion is made in the N.T. writings. They laid emphasis on the necessity of the observance of the law, even by Gentile converts. They soon cut themselves off from the fellowship of the Chrison from the fellowship of the Christian church and were known as Ebionites. They practised a strict asceticism, having much in common with the Essenes, and considered Jesus as merely one of the prophets, born in a natural fashion. They also chevical battered of the Paulius writing. showed hatred of the Pauline writings. Their gospel must have been somewhat on the lines of the lost Gospel of the Hebrews.

Judas, not Iscariot (John xiv. 22), spoken of in the Lucan list as ἰσιδας ίακώβου, which may mean either brother or son of James. He is generally identified with the Thaddeus

of Matthew and Mark.

Judas Iscariot, the betrayer of Jesus, was the only one of the disciples who did not come from Galilee. His name tells us that he was a Judæan of the town of Kerioth. All the gospels agree that he was the

though in the

Mesopotamia. The tribe which bears ravelling the motives of his treachery his name was the most is action with avarice, but

house of David. It is 1

a hardly sunicient cabelieved, indeed, that its prominence planation and widely divergent views
believed, indeed, that its prominence planation and widely divergent views in Israelitish history is due almost have been held; some such as the entirely to this king, to whom is Gnosties in ancient times and Noack attributed the union of clans, in modern, make his action in hastening the Atonement a praiseworthy one. Others hold that he desired to test Jesus, to see whether he were indeed the Christ. It is more probable that his early love had cooled with his continued avarice, and that, turning to hate, his hasty temper led him to an act followed by all the

terrors of remorse.
Judas Maccabæus, son of Mattathias, the first to take active measures 1140), a Spanish lewish poet and to stop the persecutions of the Jews physician, born at Toledo in Spain. by Antiochus Epiphanes. Mattathias Over 1100 of his poems survive. 800 died in 166 n.c., and Judas, whose

by a series of successes over the led to immoral and incumous Syrian generals, Apollonius, Seron, practices, and against these the and Gorgias, and finally over the writer also warns his readers. His viceroy Lysias himself. After these successes, Judas made Jerusalem his by contending 'carnestly for the faith centre of operations, and here he set to work to reorganise the religious system. Ho restored and fortified the with the power to hear and detertemple, procured new priests, and mine civil and criminal causes, and the standard of the success of the s temple, procured new priests, and brought in once more the observance the year 165 B.C., three years after its profanation. Religious freedom was granted to the Jews in 162, and the main object of the war was thus achieved, but Judas and many of his friends were resolved now to strive for political independence. Judas, however, was defeated and slain by Bacchides at Eleasa (161 B.C.). The command was then taken by his brother Jonathan.

Judas of Galilee, mentioned in Acts v. 37, was, with Sadduk the Pharisee, leader of an insurrection in 6 or 7 A.D., on the occasion of Judgea coming under direct Roman ad-

ministration.

Judas Tree, the name applied popularly to several plants, on one of which Judas is said to have hanged himself. It is given most commonly to Cercis Siliquastrum, a leguminous tree found in S. Europe and cultivated as a hardy plant in Britain. The purple flowers are papilionaceous, and show before the leaves.

Judd, John Wesley (b. 1840), an English geologist, born at Ports-mouth, and entered the Royal School of Mines, joining the Geological Survey staff in 1867. In 1876 he became professor of geology at the School of Mines, and in 1881 held the same position at the Royal College of He was made a C.B. in Geology of Rulland.

Jude, The Epistle of Saint, the

smallest of the general epistles and a canonical book which attained to its position only after much disputation. It does not appear in the Peshito, or Syrian version of the N.T., nor is it quoted by the greater number of quoted by the greater number of Early Christian writers. Eusebius classes it among the Antilegomena. and later St. Jerome says that its use of the apocryphal Book of Enoch was the reason of its rejection by many. The author speaks of himself as 'Jude, a servant of Jesus Christ and brother of James,' and is usually His epistle is directed against a kind not only declare the law, even coverily

surname has been explained as 'the of false teaching closely allied to hammer,' took command of the insurgent forces. He was a great warrior, and his leadership was marked seet the wrote. This Gnosticism had by a series of successes over the great that the words and licentious strains of the series of successes over the great that the series of successes over the great series over the great series of successes over the great series of successes over the great series over the great series over the grea

brought in once more the observance generally to administer justice by of the whole Law. The Temple was solemnly re-dedicated at the end of judgments as to him seem best fitted the year 165 B.C., three years after to subserve that purpose. The status of the highest Js., at any given time, in any given community, has always been one of great dignity; but the functions have differed to a remarkable degree, varying from those above noted to those of a mere juror or J. of fact, and again, judgments have varied from the ancient conception of divinely uttered awards of the Homeric poems to the presale though admirable models of scientific pre-cision of the modern High Court J. In ancient codes, 8.8 Maine themistes suggested, (Greek the Themis, goddess of justice) or judgments pronounced, whether by a king or priest in a dispute between individuals, were of so exalted a nature in the vulgar mind that they were not only deemed to be due to divine dictation but took the place of all lawmaking, and indeed laid the foundation of customary law. In Rome, during the era of the kings, the supreme J. in all cases was the king himself, and civil causes were decided by him in his capacity of pontifer maximus (high priest), and jus and sacra (law and sacred law) being for the most part inextricably involved in one another. In the developed Roman legal system the judex or J., who was generally a senator or, later, a knight, was a person with the very tudeine pp clearly issue s or me the fo

trato:

soverc. legal proceedings with weight solemnity; the judex, though of high status, had long since sunk to the condition of a mere arbiter, and it was the magistrate and not the judex who had the power not only to place the force of the state at the disposal of the judex or other person selected to administer justice, but who declared what the law was in particular cases. In all developed modern systems the highest Js. combine both identified with Judas, the apostle, or all of the above functions, they

Liey set in motion the machinery for enforcing their judgments.

In England the hierarchy of Js. may be said to be as follows: The Lord High Chancellor, Lords of Appeal in Ordinary, the Master of the Rolls, the Lord Chief Justice of England, the Lord Justices of Appeal, and the Lord Justices of Appeal, be a the High Court the Puisne Js. of the High Court, the County Court Js., Borough Recorders, County and Quarter Sessions, Stipendary and Petty Sessional Magistrates. The Lord Chancellor appoints the puisne Js. of whom there are nineteen in the King's Bench Division and six in the Chancery Division. The two additional Js. appointed by a special Act of Parliament in 1911 to cope with the arrears are not to be regarded as necessarily constituting a permanent increase; but even with this complement England possesses proportionally fewer first instance Js. than most of the other great powers. The Js. of the ultimate tribunal of converte large ways to be a second to the constitution of the converte large ways to be a second to the constitution of the converte large ways to be a second to the constitution of the converte large ways to be a second to the converte large ways to be a second to the converte large ways the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to the converte large ways to be a second to be a second to the converte large ways to be a second to be a sec tribunal of appeal are all peers; those of the penultimate court of appeal are not peers though they are styled Lord Justice —. All the puisne Lord Justice — All the puisne Js. are knighted on elevation to the bench, though they are somewhat quaintly styled Mr. Justice — and addressed or Mr. Justice — and addressed as My Lord. The chief J. of the Probate, Divorce, and Admiralty Division is styled the president, but there is only one other J. in that division. The Lord Chief Justice of England is merely the titular head of the King's Bench Division, though since the institution of the Court of Criminal Appeal, he presides in that Court. See also CIRCUITS, INFERIOR COURTS.

Judge Advocate-General, an army official appointed by the crown, whose duty it is to advise on the legality of proceedings at courtsmartial with power to revise sentences passed by such courts, and upon other matters relating to the army. The office was originally held by a privy councillor who was also a member of the government, but the functions of the office were in 1892, assigned to a judge of the High Court. That arrangement not proving satisfactory, the duties were assigned to a barrister with a salary of £2000 a year. There is an analogous official at the Admiralty to advise on matters of naval

Judges, The Book of (Heb. D'DDN') exist as valid knowledge by reason of sophetim, cf. Carthaginian their very necessity and universality, ier the effect of an assotie second book of the Form phets, of which the main sect continuation of the history

altering or improving it on occasion (1) Chs. i.-ii. 5 is a synopsis of the (Bentham's 'judge-made law'), but conquest of Canaan earlier in date they set in motion the machinery for than the Book of Joshua, from which it varies by making the action of the various tribes more independent.
(2) The main body, chs. ii. 6-xvi. 31, presenting an apparently consecutive and chronological account of the government of Israel under six major and six minor judges. The scheme of the cycles is explained in ch. ii. 11-19, which shows the recurring events as they occur in the case of each judge, 'The children of Israel did that which was evil in the sight of the Lord . . and they forsook the they forsook the anger of Lord . . . and the anger of the Lord was kindled against Israel and he delivered them into the hands of spoilers . . . and they were sore distressed. . . . And the Lord raised them up judges . . . and saved them out of the hands of their enemies all the days of the judge. . . And it came to pass when the judge was dead that they returned and corrupted themselves more than their fathers.' The final redaction of this section is due to a Deuteronomistic editor, who provided the setting but did not alter the text. (3) The last three chapters, xvii.-xxi., consist of various incidents of the same period, but in no way connected with the earlier narratives.

Judgment, in philosophy, broadly the faculty which enables a person to arrive at the truth or at what any particular school of philosophy may consider to be the truth. In ethics, it denotes the faculty of distinguishing between right and wrong conduct. In metaphysics a proposition which, by its mere suggestion, is conceived as necessary, is an a priori J., and if derived from no other than another necessary proposition it is called an absolutely a priori J. These terms are used in the Kantian philosophy in the differentiation between knowledge gained by experience and a priori knowledge. In Kant's philosophy the Js. of experience are never truly and strictly universal, but possess only the comparative universality of induction, i.e. experience can only tell us that so far as our observation goes, a particular result will follow from a particular combination of circum-stances. But necessity and strict universality are sure criteria of a priori knowledge. Hume arguing from this position had asserted that necessary and universal Js. could not exist as valid knowledge by reason of

leas. Kant, however, validity of universal

the possibility of passing Js. going tension beyond the range of experience from the otherwise very impossibility of experience itself, goes on to show the bearing of such intellectual Js. upon the supersensible world or the ulti-

mate problems of metaphysics-God.

freedom, and universality.

Judgment, The Last. Christian eschatology deals in a particularly clear manner with a final resurrection, and the doctrine of the resurrection of the body finds a place in the creed of the Christian Church. is closely connected with the article of the L. J. The Nicene Creed says that Christ 'shall come again with glory to judge both the living and the dead.' This belief is founded upon: (1) Many parables of Christ recorded in the Gospels, such as those of the wedding-feast of the king's son, the ten virgins, the talents, and the sheep and goats. (2) Other statements of our Lord, such as that contained in John v. 28, 29. (3) The clear words of St. Paul (2 Cor. v. 10), we must all appear hefore the judgment-seat of Christ; that every one may receive the things done in his body, according to that which he hath done, whether it be good or bad.' (4) The account given in the apocalypse of St. John (Rev. xx. 12 ft.). Briefty, the general Christian idea of the L. J. is that when the end of the world comes, those who have died before that time will rise again with their own bodies, though these will be spiritualised as was Christ's body after His Resurrection. Then all, both living and dead, will be judged by Christ. The judgment is not to be considered as arbitrary but as perfectly just and in accord with Christ's work as Saviour- out of thine own mouth will I judge thee.

Judgments Extension Acts. By the ovisions of the Judgments Exprovisions of the Judgments tension Acts a party who has obtained a judgment in any court in England, Scotland, or Ireland, may register the judgment in each of the other countries for the purpose of obtaining execution. The Judgments Extension Acts, 1868, provides for the registration in the Court of Common Pleas (now King's Bench Division) of Ireland, and in the office for the registration of deeds in Edinburgh, of certificates of entry of

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unless the court that is asked to register it allows such registration. The effect of registering a certificate is to give a new cause of action to the creditor against the judgment debtor.

1882. Acts. extends principle of registration to judgments obtained in inferior courts (q.v.).

Judicature Acts, these comprise the Judicature Acts, 1873, 1874, 1875, 1879, 1881, 1883, and 1884, and the Appellate Jurisdiction Act, 1876. The main purpose of these Acts was to create a supreme tribunal out of the then existing courts (see Common Pleas, Exchequer, CHANCERY COURT and KING'S BENCH) with as little change as consistent with the object of administering in the new court complete legal and equitable relief, and to simplify as far as possible the procedure therein by calities . ΩR

trover. by other provisions designed to obviate the necessity for adherence to archaic terms of art. Under the Judicature Acts, the Supreme Court of Judicature, which consists of two branches, the Court of Appeal and the High Court of Justice; while the High Court is composed of the King's Bench, the Chancery, and the Probate, Divorce, Bank-

work and the the Railway

Commission are assigned to particular judges of the High Court (see also CHOSE IN ACTION as to as-The Acts endeavour as signments). far as possible to assimilate the pro-cedure in the King's Bench Division and the Chancery Division of the High Court; but at the present day the procedure in the two courts is essentially different, and the so-called fusion of law and equity popularly believed to have followed from the provision in section 4 of the Act of 1873 for the concurrent administration of law and equity, is little better than a legal fiction. Scc CHANCERY, EQUITY.

Factor. Judicial FACTOR. 8ce.

JUDICIAL.

Judicial Separation, a decree for J. S. or divorce a mensa el thoro is a remedy for certain matrimonial offences, which, unlike a decree of dissolution of marriage (divorce a matrimonii rinculo), does not leave the parties at liberty to marry again.

A J. S. may be obtained by either spouse on these grounds: (1) Adultery; (2) cruelty; (3) under Section 16 of the Matrimonial Causes Act, 1857, for desertion without cause for two years or npwards; (4) for statutory desertion under Section 5 of the Matrimonial Causes Act, 1884, that is where the respondent to the petition for J. S. has failed to obey a previous order of the court for restitution of conjugal rights. Against The Inferior Courts Judgments Ex- a husband J. S. may also be obtained

for adultery, and she has property in possession or reversion, the court may compel a settlement of so much of the property as it deems reasonable for the benefit of the husband or the children of the marriage. The petitioner for J. S. must, as in the case of a suit for dissolution, jactitation (q.v.), and nullity, file together with the petition an affidavit stating that there is no collusion (q.v.) or con-nivance between the two spouses. Where a wife gets a J. S. she may apply by petition for permanent alimony (financial support from the husband) provided she gives the husband eight days notice prior to her application. The court, even before the decree for J. S. has been made final, may make such orders as it thinks fit for the custody, mainten-ance, and access, and education of the children of the marriage, together with provision for their support when the final decree is pronounced. Incidentally to these purposes the court has power to vary the terms of settlements of property on the respondent. The defences to a suit for I. Survey in the respondent of the settlements of property of the respondent. J. S. are as in a suit for dissolution: (a) Connivance at adultery; (b) condonation of adultery; (c) collusion; (d) adultery, describen, etc., not proven. Connivance, generally speaking, means acquiescence in adulterous intercourse by wilful abstention from taking any steps to prevent it. Cruelty and desertion, however much they may induce a wife to become unfaithful, do not amount to connivance in law. Condonation implies a conditional forgiveness with a full knowledge of all antecedent guilt, the condition being that the offence shall not be repeated, or, as it has been expressed, a complete blotting out of a conjugal oftence followed by cohabitation with full knowledge of all the circumstances. Collusion means an agreement between the spouses to commit or appear to commit a matrimonial offence so as to facilitate a divorce.

In England the grounds for a dissolution are by some deemed unduly narrow, and the evidence given by a number of prominent people before the Royal Commission which sat under the presidency of Lord Mersey (formerly Mr. Justice Bigham, President of the Divorce Court) to inquire into the existing divorce laws, manifested a very prevalent desire for assimilating the grounds of dissolution to those of J. S. There is some

on the ground of sodomy or an attempt to commit that offence. Where married state be regarded from the a decree is pronounced against a wife purely material and non-Christian point of view, there may no doubt be the strongest arguments adducible in favour of extending the grounds of dissolution so far as to include not only the insanity of one spouse, addiction to drink, and so forth, but what the Americans call 'incom-patibility of temperament.' But hardly any one can deny that no sort

I law which husband for his wife's adultery, but requires some additional matrimonial wrong, such as cruelty, to enable a wife to obtain any higher remedy than J. S. on account of her husband's adultery.

Judith, an old English poem, pro-bably of the 9th century, of which only fragments remain, and of which the author is unknown. Its theme is taken from the apocryphal book of Judith, and the treatment is vivid in the extreme. The event is, of course, treated as though it were contem-porary history, and the action throughout is assimilated to Saxon methods. The metre is the ordinary Anglo-Saxon alliterative verse, but it is varied towards the end by lines

of extra length.

Judith, The Book of, one of the best known of the books forming the Apocrypha. It tells how the city of Bethulia was besieged in the time of Nebuchadnezzar, by his general, Holofernes, and how the Jewish in-habitants were in despair. They were encouraged, however, by a widow named Judith, who exhorted them to trust in God since their town was free from idolatry. She then went forth to the camp of Holofernes, who was captivated by her beauty. At the banquet he drank deeply, and when left alone with him, Judith took advantage of this and slew him. She then brought his head to her city, and her success roused the enthusiasm of her townsfolk, who rushed out in force and entirely scattered the be-siegers. The story has always been recognised as unhistorical, for it is perfectly saturated with Pharasaism. It is now generally dated about the time of Pompey's march on Jerusalem in 63 n.c., but some place it earlier—about the beginning of the 1st century B.C. Bethulia is, of course, equivalent to Jerusalem.

Judson, Adoniram (1788-1850), an American missionary, born at Mal-den, Massachusetts. After graduatden, Massachusetts. assimilating the grounds of dissolu-ing at Brown University (1807), he tion to those of J. S. There is some justification for the description of the Seminary and became a Congregastate of a judicially separated spouse, itional minister. He sailed for Burma as one of 'compulsory celibacy con- in 1812, and on the voyage joined the followed by a Burmese-English Dictionary. See Lives by his son (1883). Wayland (1854), and Middleditch (1859).

Juel

Juel, Niels (1629-97), a Danish admiral, born at Christiania. He served under Van Tromp and De Ruyter, fighting in the war with England (1652-54). He subsequently took part in the Swedo-Danish wars (1658-60), and in the Scanian War, when he was appointed to the supreme com-He was victorious at mand (1673). Jasmund (1676) and at the Bay of Kjöge (1677), when he distinguished himself by his brilliant tactics.

Jugdalak, or Jagdalak, a village and pass situated between Kabul and Jalalabad, Afghanistan, memorable for a massacre of the British in 1842.

Juggernaut, or Puri, a tn. situated on the Orissa coast, Bengal, India. It is one of the holy places of India, and in addition to its having for a number of centuries preserved the Golden Tooth of Buddha, it is famous for a temple built in honour of for a temple built in honour of Vishnu, and in which was his idol. The name given to this idol was Jagannath or Juggernaut ('lord of the world'), and it was the representation of a god of the people. Several feetivals are calculated in his terrogram festivals are celebrated in his honour each year, the chief one being that of the car. The ceremony consists in drawing the god on a huge car to a place near by, the journey extending over several days. Large numbers of pilgrims assemble in the town for this purpose, and as some are killed during the journey, the belief has become current that it is customary for them to throw themselves under the car. This, however, has been contradicted.

Juggling is very much the same as

(knife-throwers) ar

and Zoroaster, who reformed the Magi, and Paracelsus, the necroman-cer, were famous for their marvellous among the latter the so-called aceta- the face and the deeper parts of the bularii performed ilum. 'Cutting the throat' usu-with tiny pebbles,

Baptist Church. He and his wife players) were professional entersettled in Rangoon, but subsequently tainers in the imperial days. Masmoved to Ava, where J. was imsenet's pathetic opera, Le Jongleur de prisoned during the Burmese War. Notre Dame, gives an idyllic picture His translation of the Bible into Burof a wandering juggler in the great mess was completed in 1833, and was monastic days, and in olden times no country fair was complete without its conjurers and tricksters, and no vil-lage was for long without its after-noon's entertainment in the form of the knife swallowings and ball-tossings of some needy and itinerant Merry Andrew. In Hocus Pocus' Anatomy of Legerdemaine (1634) there is mention of 'the greatest jugier in England,' who 'used the assistance of a familiar; he lived, we are told, 'a tinker by trade, and used his feats as a trade by the by; he lived... always betattered, and died, for Jonas, Androletti, and Carlotti en-joyed high reputations as conjurers in Paris during the 18th century, and about 1783 the Italian, Pinetti, began to give his sensational exhibitions of legerdemain. In modern times the Indians and Chinese have surpassed Western peoples in the ingenuity of their impostures and in the positive skill with which they juggle with fire. rings, knives, balls, and swords—conjuring properties which seem more especially to form the stock-in-trade of the professional juggler. See CONJURING.

Juglans, the chief genus of Juglandacew, contains eight species, all of which are found in N. lands; it is closely allied to Carya, the hickory trees. J. regia, the walnut, is the best-known species of the genus; it is a tree of handsome appearance, with wood used for cabinet-making, while the fruit is edible and nutritious and the seeds yield oil. The other species have also edible fruits, and J. nigra

produces valuable wood.

Jugular Veins, The. Their number varies in different individuals, but the four chief ones are: (a) the criernal jugular, which can usually be seen through the skin and muscle on the whilst fong the skin and muscle on the side of the neck. It runs in a line drawn from the angle of the faw and eventually pierces the deep fascia above the middle of the days of the ancient Chaldees and Egyptians. The magicians of Pharach, Jannes and Jambres tried to outdo the miracles of Moses and Zoroaster middle line of the neck. (c) Posterior jugular, collecting from the neck. (d) Internal jugular, uniting at the root of the neck with the subclayian to feats. The Greeks and Romans were form the vena innominata; its blood is no strangers to sleight of hand, and obtained from the superficial parts of

> results in injuries to one or more hese veins. A severance of the

internal is critical, and in the case of | deprived of their swords, which they division of any of the jugular veins alone were allowed to carry.

In the development of the embryo the primitive jugular represents the anterior cardinal of the two longitudinal vein trunks formed by the junction of veins from body segments. It receives less segmental veins than the posterior cardinal, as the first site of the heart is in that portion which later becomes the neck of the embryo.

Jugurtha (d. 104 B.C.), a Numidian king, natural son of Mastanabal and grandson of Masinissa. He was brought up by his uncle, Micipsa, who left his kingdom (118) to J. and his two sons, Hiempsal and Adherbal. J., greedy for supreme authority, determined to get rid of his cousins, and assassinated Hiempsal. The Roman Senate decreed that the kingdom should be equally divided between J. and Adherbal, but in 112 the former had Adherbal put to death. War was now declared between Rome and Numidia, J. having attacked the Italian inhabitants of Cirta. J. drove the Roman troops out of his kingdom (110), and in the following year fresh Quintus Metellus was superseded by Marius in 107; J. now made an enemy's body as will render him alliance with

chus, and on t defeated, with the interior. with Rome by

Jugurthan War was written Sallust.

Ju-jitsu, Jiu-jitsu, or Ju-jutsu are various ways of spelling the English form of a Japanese word signifying the national art of self-defence without weapons. The word means 'muscle-science,' or is sometimes translated as 'to conquer by yield-translated as 'to conquer by yield-ing,' from the Japanese word ju upper arm, etc. If J. has to be prac-(pliant); the latt certainly a good combatants' resources are called

division of any of the juguin vehicle the change in the constitution and of air to the cardiac cavities. | the change in the constitution and methods of Japan took place, how ever, the art has been taught to all who wish to learn. It is generally taught in the schools, is compulsory in the army, the navy, and the police, and the national society of J. has a great and growing membership. the beginning of the 20th century J. began to attract the attention of other nations. Schools were started in Europe, the U.S.A., and in Great Britain, and it may be said that the knowledge of the art is undoubtedly spreading in all these countries. Broadly speaking, J. may be said to be the apotheosis of laissez-faire, but in a somewhat different sense from the usual; the triumph of J. consists in letting one's antagonist do all the work, and in turning his own strength against himself. He rushes blindly to his undoing, and the greater his strength and power the greater is his fall. Imazo Nitobe says that it is the application of anatomical knowledge to purposes of offence and de-fence, differing from wrestling be-cause strength is not required, and troops were sent from Rome, under from other forms because no weapons

and delivered J. up in chains to Sulla, much greater among Japanese than the questor (106). Marius led his among Europeans. In boxing, for prisoner in triumph through Rome, instance, we recognise such points as and afterwards threw him into a the solar plexus, and the point of the dungeon to die. The history of the jaw as being particularly vulnerable, and the peculiarity of the 'funny-bone' is universally known. But the Japanese J. experts know many more points which cause temporary paralysis of the parts affected when struck. among which may be mentioned the arm-pit, the ankle and wrist bones, the tendon running down from the ear,

art, whatever its

or if the match taking place is

The story that J. was founded by a very serious, any hold is permissible.

Japanese physician who brought it and a broken or badly sprained limb Japanese physician who brought it and a broken or badly sprained limb from China is probably not true; it is is usually considered that the art was known and practised as early as the tracking of the art such extreme of the feudal system in Japan, J., or as it was also called, shinobi or japan, was a secret art practised of Japan. By means of this know-of Japan. By means of this know-of Japan. By means of this know-of Japan secret the common people even when difference between wrestling and J.; in the latter there is no set position into which the defeated competitor must be placed, as his arm or leg may be broken in any position. In this respect J. may be compared to the pancratium of the Olympic games, when one competitor had to admit defeat. A bout at J. begins as follows: The competitors take hold with both hands of the collar of each other's jacket or kimono, and on the word being given they manœuvre by means of pushing, jerking, falling, etc., to obtain a winning grip. Very often the only way of escape from a grip is to fall down, or be thrown down, but this does not defeat necessarily mean the greater part of the bout will as a rule take place on the floor. It is a preva-lent error that most of the 'falls' and 'holds' in J. are extraordinarily complicated, and need to be learnt in a mechanical fashion. As a matter of fact, a few simple principles govern all the practice of the art; a knowledge of anatomy (vide supra), and an ability to fall without injury, combined with constant application and attention, will carry a pupil far. The attention, will carry a pupil far. quickness. qualities required are suppleness, and a good balance; stiffness is the unpardonable sin in J. As with many other sports, the training necessary for success in J. is one of the most valuable things associated with it. A light and nourishing diet with it. A light and nourishing diet only should be taken, deep breathing should be practised, and pleaty of fresh air and sleep secured, and moderation in all things should be observed. Training for J. cannot begin too early; in Japan many children are brought up from child-bood in the practice of the art hood in the practice of the art. Women are trained in it also, and often compete on equal terms with men. It has often been attempted to match J. experts against wrestlers, but the results have not been satis-factory. Most of the J. holds are fouls from a wrestling point of view, and the blow with the flat hand, which is largely used in the former science, is harred in the latter. The Japanese Hart and Summer than the latter. The Japanese Hart and Summer than the latter. The Japanese Hart and studied geology under Sedgpractices, and there is no do as an accomplishment for

as an accomplishment for the 'man in the street' to defend himself in an emergency, J. is preeminent. Unfortunately the 'man in the street' is not wont to equip himself against any emergency until too late. See H. J. Hancock, Japanese Physical Training, 1904; Skinner, Ju-jilsu, 1905; S. K. Uyenishi, Ju-jilsu, 1905; S. K. Uyenishi, Ju-jilsu, 1905; S. K. Uyenishi, Ju-jilsu, 1905; K. Saito, Ju-jilsu Jilsu, 1905; K. Saito, Ju-jilsu Tricks, 1905, etc.

Guinea, and the E. Guinea, and the E. Guinea, and the E. Const of Australia, and on his return to England in 1846 was sent by the Geological Survey of the United Kingdom to survey N. Wales, becoming the interpolation of the Survey N. Wales, and the E. Constant in the E. Constant in the E. Constant in the Survey N. Wales, becoming the interpolation of the Survey N. Wales, becoming to England in 1846 was sent by the England in 1846

Ju-iu, a word used by the Africans of the Guinea Coast to denote any kind of fetish. It may have been adopted from French joujou, a toy, or corrupted from Mandingo gru-gru, a charm. The word, besides denoting the shrine, idol, or charm in which a spirit was supposed to dwell, was applied to the spirit itself, and hence loosely to witchcraft, savage rites, and customs characteristic of the negroes. The 'Long Ju-ju' of the Nigerian Aros was a sacred shrine where human beings were sacrificed until the British interfered (1901-2). See De Cardi's 'Ju-ju Laws and Customs' in Jour. Anthrop. Inst., Aug. Nov. 1899.

Jujube, the name of several plants of the genus Zizuphus in the order Rhamnaceæ, which consists of shrubs and small trees found in the tropics. Many of the species bear edible fruits. and these are sometimes dried and used as sweetmeats. Z. vulgaris, the common or French J., flourishes in the East and produces a small red or yellow fruit; Z. Lotus, the lotus, bears a small sweet fruit said to be the lotus fruit known to antiquity; Z. Spina-Christi, Christ's Thorn, is fabled to have yielded the crown of thorns. The confection known as J. is made of gum arabic or gelatine, glycerine, and pure sugar, and is flavoured like the J. fruit.

Jujuy: 1. A prov. of Argentina, situated in the N.W. of that republic, and having Bolivia on its northern and western sides. Its area is 18,977 sq. m. Part of the surface is mountainous, rising to a height of over 15,000 ft. The state is rich in mineral wealth, but very little has been done to work the mines. Pop. 62,413. 2. Cap. of the above prov., and connected by rail with Buenos Ayres. It is the chief means of transit to Bolivia, and possesses a national college and a

have generally held their own, how-wick, and was appointed geological ever, even when debarred fr undland (1839-40).

l an expedition to Guinea, and the E.

1866.

edited by his sister, C. A. Browne, in lat the instigation of his three sons, a

Julfa, a suburb of Ispahan in

Persia. Jülg, Bernhard (1825-86), a German philologist, born at Ringelbach in Baden. After completing his studies in philology, and holding various other posts, he was appointed in 1851 professor of classical philology at Lemburg. In 1853 he became a pro-fessor at Cracow University, and in 1863 at Innsbruck, distinguishing himself, not only in his knowledge of philology, but also in that of the folklore of various countries. Among his publications are: Vater's Litteratur publications are: Vater's Litteratur der Grammatiken, Lexika und Wörter-sammlungen aller Sprachen der Erde,

1847; Die Märchen des Siddhi-Kür,

Julia, the name of several Roman women of rank, belonging to the Julia Gens: 1. Sister of Julius Cæsar, the wife of M. Atius Balbus, and the grandmother of Augustus. 2. (d. 54 B.C.) Daughter of Julius Cæsar by Cornelia. She married Pompey in 59. 3. (39 B.C.-14 A.D.) Daughter of Augustus by Scribonia. In 25 she married her cousin, M. Marcellus, who died two years later. She then married M. Agrippa, by whom she had five children, Caius and Lucius Cresar, Agrippa Postumus, Julia, and Agrippina. Her third marriage in 12 B.C. was to Tiberius Nero, who was afterwards emperor. In 2 B.C. Augustus banished her to Pandataria, an island of Campania, on account of her adulteries, and she was subsequently removed to Rhegium, where she died. 4. (d. 28) A.D.) Daughter of the above, and wife of L. Æmilius Paulus. Like her of L. Æmilius Paulus. mother, she was notoriously immoral, and was banished by Augustus to died, is supposed to have cried out, Tremerus, an island off Apulia, in Thou hast conquered, O Galilean. 9 A.D. 5. The youngest daughter of His extant writings are Casares or Germanicus by Claudius Messalina. (

Drusus and cus, also killed by Claudius at Messalina's instigation.

famous patrion.

Pome, It claimed Julia Gens, Julia Gens, a famous family of ancient Rome. descent from Julus (sometimes called Ascanius), the son of Æneas and grandson of Venus and Anchises. Julus is supposed to have founded Alba Longa, so that the family came of Alban stock. On the destruction of that city the J. G. was removed to Rome by Tullus Hostilius.

Julian (Flavius Claudius Julianus), surnamed the Apostate (331-63), a Roman emperor, born at Constantibeing the youngest son of Julius Constantius and Basilina, and

terrible massacre took place in which J. and his elder half-brother, Gallus, alone escaped out of their kinsfolk. J. was educated under strict supervision at Nicomedia, until 344, when he and his brother were removed to Macellum in Cappadocia. In early life he became greatly attached to Greek culture, and accepted the Greek religion with its philosophy. In 355 J. was created Cæsar at Milan by the Emperor Constantius II., whose sister Helena (q.v.) he married. Thereupon J. was entrusted with the government of Gaul, and in 357 won a great battle against the Alamanni at Strassburg. He took up his residence in Paris, wisely administered the laws, and relieved the people of some of the heavy taxes. The emperor, becoming jealous of his increasing popularity, bade him lead his troops against the Persians, whereupon his soldiers proclaimed him Augustus (360). Constantius opportunely died in 361, and J. was universally acknowledged his successor. He now openly declared his apostasy, and proclaimed uni-versal toleration within his realms; but he deprived the church of its former privileges, forbade Christians to teach rhetoric, and in the offices of state gave preference to pagans, Before long, he made great prepara-tions for an invasion of Persia, and

misled by the treachery of a Persian nobleman who advised him to march inland to meet the forces of Shapur II. His men suffered terribly from thirst and were overcome by the heat.

During the battle, J. fell, and as he died, is supposed to have cried out, 'Thou hast conquered, O Galilean.'

Misopogon, eight Ora-1 series of Letters. His νῶν, an attack on Christist. Consult the editions of Spanheim (1696) and Hertlein

(1875-76): Gibbon's Decline and Fall (chs. xix., xxii.-xxiv.); Alice Gardner, Julian, Philosopher and Emperor, 1895; Allard, Julien l'Apostat, 1903; and Ibsen's drama (Eng. trans.), 1876.

Julian Calendar, Epoch, see CALEN-DAR, CHRONOLOGY.

Julianus, Salvius (b. c. 100 A.D.), a celebrated Roman jurist, who lived during the rule of Hadrian and the Antonines. By order of Hadrian, he was entrusted with the work of drawing up the edictum perpetuum from the immense mass of laws and prictors edicts which existed at the time. His other works include Digestorum Libri the nephew of Constantine the Great. XC., Ad Minicium, and Dc Am-On the death of Constantine in 337, biguitatibus Liber Singularis. He held

was twice consul.

Jülich, a tn. in the Rhine prov., Prussia. It is situated 18 m. N.E. of Aix-la-Chapelle, and was originally the capital of the duchy of the same name, but became part of Prussia in 1814. The chief manufs. are leather, sugar, and paper. Pop. 6620.

Jülicher, Gustav Adolf (b. 1857), a German professor of theology, and N.T. scholar, born at Falkenberg near Berlin, and educated at the Berlin University. In 1888 he was appointed professor of N.T. history at Marburg. His principal publica-tions are Die Gleichnisraden Jesu, and Eniletung in das Neue Testament, J. is one of the foremost living critical

and exegetical scholars.

Julien, Stanislas Aignan (1799-1873). a French Orientalist, born at Orleans. At the age of twenty-one he became an assistant professor of Greek at the Collège de France, and had a wide knowledge of modern European languages. He began to study Chinese, and from 1824-26 published a Latin translation of Mencius (Mang-tse). In 1832 he was appointed professor of Chinese at the Collège, and became keeper of the Royal Library (1839) and head of the Collège Impériale (1854). His works include French of Marie (1864) and the Collège Impériale (1854). tropic of Holi-lan-ki (The Circle of Chalk), 1832; Tchao-chi-kou-cul (The Chinese Orphan), 1834; Voyages du pélériu Hiouen-tsang, 1853; and a Syntaxe nouvelle de la langue

Chinoise. 1869.

Julier Pass, one of the Alpine passes, situated in the canton of Grisons, Switzerland. It connects the Rhine Valley and the Upper Engadine, and has an altitude of 7500 ft. There is now a railway tunnel under Albula Pass (opened 1903), superseding the

old route.

Julius, the name of three popes: Julius I. (337-52). In the Arian controversy he supported Athanasius. with whom he was deposed by the Eastern bishops at Philippopolis.

Julius II. (Giuliano della Rorere) (1503-13), a nephew of Sixtus IV., born at Savona in 1443. During his uncle's pontificate he received many honours, and was sent as legate to France (1480), where he acquired great political influence. On his election to the pontificate he recovered Romagna from the Borgins, and deserted his proving the superscript of the pontification of the po

the position of præfectus urbi, and Louis (1510). J. condemned duelling (1509) and simony (1513); sent missionaries to India, Africa, and sionaries America; and was a liberal patron of

America; and was a liberal patron of the fine arts. Consult his Life by Dumesnil (1873), and Brosch (1878).

Julius III. (Gioranni Maria del Morte) (1550-55), born in 1487. Hewas one of the three legates under whom the Council of Trent was opened. He sent Cardinal Pole to England to proportiots with Morre for the extraction. negotiate with Mary for the restoration of her kingdom to Rome. He was by nature pleasure-loving, was guilty of the charge of nepotism. Consult Ranke's History of the Popes, and L. Pastor's History of the Popes

(Eng. trans.), 1898. Jullien, Louis Antoine (1812-60), a musical conductor, born at Sisteron, Basses Alpes, France. He became a conductor of concerts in Paris (1836), came to London (1839) where he established promenade concerts, and America. His light, attractive concerts drew large audiences, and his Monster Ouadrilles? travelled in the British Isles and Quadrilles ' popular. He became bankrupt (1857) and ultimately returned to Paris. where he was arrested for debt (1859) and died insane.

Juliunder, see JALANDHAR.
Julus, or Iulus, a genus of myriapods of the order Chilognatha, and the species are often known as gally-worms. The number of body segments varies between forty and fifty, many of which have two pairs of legs.

July, the seventh month of the Christian calendar. In the Roman calendar it was the fifth month and was therefore called Quintilis. honour of Julius Cæsar, whose birth-day fell on the 12th, it was named Julius in the last year of his life. The feasts of St. Swithin and St. James fall on the 15th and 25th respectively. During the month the sun leaves Cancer and enters the sign of Leo; Dog Days begin on the 3rd.

Jumet, atn.in the prov. of Hainault, Belgium, 3 m. N. of Charleroi, and is noted for its glass works and coal mines. Pop. 26,800.

Jumièges, Robert of, was born in Normandy and came to reside in Proclands of Olleways & Jumiège of the Proclands
England as a follower of Edward the Confessor. In 1044 he became Bishop of London, and in 1051 Edward appointed him Archbishop of Canter-bury. He was a firm friend of the king's, but opposed to Earl Godwin, Romagna from the borgins, and the latter's return from exile voted all his energies to suppressing and on the latter's return from exile to flee to Jumièges, where

William of, was a Nor-Louis man monk, and is remembered on e sub-laccount of his work of compiling a joined history of the dukes of Normandy the Holy League directed against down to 1071. This book, written in

Latin, is in J. P. Migne's Patrologia | schizocarp.

Cursus Completus.

Jumilla, a tn. in the prov. Murcia, Spain, situated about 37 m. N.W. of Murcia. Its chief productions are wine and brandy. about 16,000.

Jumping, see ATHLETICS.

Jumping Hare, or Pedetes Caffer, called by the Dutch Spring Haas, a rodent of S. Africa and a member of the family Pedetide, being the only species of the genus Pedetes. The head of the animal resembles that of a hare, but its general appearance and movements are like those of a jerboa, though it is larger. It is, in fact, placed by some zoologists in the same family as the jerboas (Dipodidæ). tts chief characteristics are its long tail, five toes on the fore feet and four on the hind, and hind limbs much longer than the fore limbs, thus enabling it to make immense leaps. It is also a nocturnal animal.

Jumping Mouse, or Zapus Hud-sonius, a member of the jerboa family (Dipodidæ) and a native of N. America. It resembles a mouse, having a long tail and its hind limbs longer than the fore limbs, enabling it to leap in the same way as the other species of Dipodide.

Junagarh: 1. A state, situated on the Kathiawar Peninsula, Bombay, India. The chief products are cottons and cereals. Area 3283 sq. m. Pop. about 400,000. 2. The cap. of the above state, situated on the Rajputana Rajlway. The town contains several features of interest, among them an old citadel and some Buddhist caves. Pop. about 34,200.

Juncacem, an order of monocotyledons, is so named from its chief genus, Juncus, which contains the rushes. There are 200 species, most of which are obscure herbaceous plants grow-ing in colder parts of the world. The inflorescence is cymose and consists of hermaphrodite flowers; the perianth is sepaloid and in two whorls of three, the stamens are in two whorls of three or only the outer whorl may be present, the ovary is superior and consists of three united carpels usually containing numerous ovules; the fruit is a loculicidal capsule.

Juncaginacem, an order of small and unimportant monocotyledonous plants, is found in temperate lands, and consists of four genera of marshherbs. The inflorescence is racemose, with hermaphrodite flowers; the perianth is sepaloid and in two whorls of three, the stamens are in two whorls of three and have introsed that the contract of the stamens are in two whorls of three and have introsed. the anthers, the ovary is superior and consists of six carpels in two whorls; there is a single ovule in each carpel, sugar. Pop. 16,340. and the fruit may be an achene or a Jungermannia, a

The chief genus is Triglochiñ.

Junction City, the co. seat of Geary co., Kansas, U.S.A., between Republican and Smoky Hill Rivers. It is an important agricultural centre.

Pop. (1910) 5598.

Juneus, the chief genus of Juneacere. contains over 160 species, eighteen of which occur in Britain. These rushes are cosmopolitan in distribution and frequent damp, cold localities; in habit they are rigid, with slender stems which may contain pith or may be hollow; the flowers are small, may be nonlow; the nowers are sman, green or brown in colour, and are borne in dense heads or panicles; fertilisation is effected by means of the wind. The economic importance of J. is slight; J. squarrosus forms a pasturage for sheep in hilly districts of Britain; other species are used to fix the soil on river-banks; chairbottoms, matting, and baskets are made from the long, flat leaves, and the pith forms the wick of rush-lights still used in Europe and in China.

June, the sixth month of the Christian calendar. According to Ovid it was named after Juno (q.v.), the guardian of women, her month being regarded as favourable for marriage. In the Roman calendar it was the fourth month and originally had twenty-six days, but later twentynine; to these Julius Cæsar added one at the time of his reform of the calendar. The sun leaves the sign of Leo during the month and enters Cancer. The days of St. Barnabas and St. Peter are on the 11th and 29th respectively. Midsummer day falls on the 24th.

Juneau, the cap. of Alaska, U.S.A., and is situated opposite Douglas Is. on Gastineau Channel. It exports gold, furs, and curios, and is a large mining centre, being close to the Treadwell gold mine and the Silver Bow mine. Pop. (1910) 2500.

Jung, Sir Bahader (1816-77), Prime Minister of Nepal, was, after the death of his uncle, who held an important position in Nepal, himself promoted to a high office. Through his own efforts, however, in 1846 he made himself Prime Minister and banished the king and queen from the country. He received a knighthood for his assistance rendered to the British during the Indian Mutiny (1858).

Jung, Johan Heinrich, see Stilling, Johann Heinrich.

Jung, Sir Salar, see Salar Jung.
Jungbunzlau, a tn. of Bohemia,
Austria, 45 m. N.E. of Prague;
manufs. cottons, woollens, glass, and

Jungermannia, a genus of liver-

like and are known popularly as scale-mosses; several have been found

Jungfrau (Ger. maiden), one of the heights in the Bernese Alps, situated about 7 m. W. of the Finsteraarhorn on the boundary of the canton of Bern. Its height is 13,670 ft., and it seems to have received its name from the pure whiteness of its snow-clad peak. It was climbed in 1811 by the brothers Meyer, and since then several others have accomplished the feat. There is now being constructed a railway to reach to the summit of the mountain, most of the line being through a tunnel.

Jungle (Sanskrit Jangala, desert), the name applied to tracts of land which are thickly covered with trees or shrubs, made nearly impassable by tall grasses and undergrowth. The soil is, as a rule, marshy, and these Js. are inhabited by beasts of prey,

snakes, and monkeys.

Jungle-fowl, the name applied to birds of the genus G., to which belong four species. G. ferrugineus, the Red J., is generally considered to be the origin of domesticated poultry. Its back is purplish-red and orange, while the under surface wings and tail are greenish - black tinged with yellow. It is a native of India, Sumatra, the Philippine Is, and the Celebes, and is pugnacious towards its own kind, while the noise of both cock and hen is said to re-semble that of ordinary domestic varieties. The other species of the genus are: G. sonnerali, the Grey J., a native of Southern, Central, and Western India; G. Varius, found in Java; and G. lafayetlii, a native of Ceylon.

Junia Gens, a family of ancient ome, of which Lucius Junius Rome, Brutus, who expelled the kings, and Brutus, Cæsar's murderer,

members.

Junin: 1. A dept. of Peru, traversed by the Andes Mts. In this dept. is the Lake of Junin or Chinchaycocha. situated at an elevation of 13,000 ft... and drained by the R. Montaro. The dopt. is rich in minerals, including silver. Area 23,347 sq. m. Pop. 394,393. 2. A tn. situated in the dept. of Junin, Peru, 100 m. N.E. of Lima, standing at an elevation of Lima, s of 13,000 ft.

Junina, the prin. trib. of the Upper Ganges, India. It rises in the Himalayas at an elevation of 12,000 ft., and pursues first an easterly and then a south-easterly course through the

worts which received its name in Ganges. This river, which is about honour of the German botanist, 860 m. in length, feeds the Eastern Jungermann. The species are moss-land Western Junina Canals, and has several important towns on its banks, among them, Delhi, Agra, Firozabad and Allahabad.

Juniperus, a genus of coniferous plants containing thirty species, all of which are evergreen trees or shrubs and flourish in the N. hemisphere. The leaves are small, needle-shaped, and occur either as opposite leaves or in whorls of three or four; occasionally they are imbricated in four rows. The flowers are directions; the males form a scaly catkin and the females a small rounded cone which later develops into a fleshy fruit, known as a galbule, in appearance greatly resembling a true berry. J. communis, the common juniper, flourishes in Great Britain as well as in other parts of N. Europe and Asia; the stem and leaves contain an aromatic principle; the blue-black fruit is usêd

flavouring of red cedar of

a valuable wood used by turners and cabinet-makers, and it is also employed in making lead pencils and cigar boxes; J. Bermudiana serves like purposes. J. Sabina. the savin, grows in S. Europe, and the topmost twigs of the plant are used in pharmacy.

Junius, Letters of, literary а of the 18th century -a curiosity curiosity because, in spite of inthe genious surmises and most thorough and persistent perusal of contemporary documents, the identity of the author is still doubtful, and it is as true to-day as at the hour of their publication that—to quote his own words—'the mystery of Junius increases his importance.' The letters, increases his importance.' The letters, seventy in number, appeared in the London Public Advertiser, between Jan. 21, 1769, and Jan. 21, 1772. During this period the writer invariably used the pseudonym of Junius, though he had at different times availed himself of others, 'Lucius,' Brutus,' and possibly of 'Nemesis.' His object was clearly to turn the Duke of Gentfood,' minister. run the Duke of Grafton's ministry, and in fulfilment of that purpose he used the weapon which nature had given him, namely satire of the most brilliant and deadly description. The Marquis of Granby, the Duke of Bedford, and Lord Chief Justice Mansfeld, were each in turn the victims of his powerful and vilifying invective, but the most violent of Junius's onslaughts were naturally reserved for their leader, the in-Grafton. effectual Moreover. United Provinces, and at a distance author profiled by his disguise or of 3 m. below Allahabad joins the rather invisibility, to speak some

frank abuse of the king; indeed, it | the same time the people, plants and was the impudent epistle he addressed to George III. which excited a veritable storm of indignation, and at the same time sealed the writer's fame. But Junius was defeated in his aims; for the fall of Grafton (1770) was only the signal for the advent of Lord North and his tedious administraion. Perhaps Junius deserved no better; for although he was a loyal and active supporter of Chatham he showed no political acumen in the steps he took towards restoring him to power. A modern reader of the 'Junius' polemics will be struck with their scurrility and venom; let him re-member that these were fashionable qualities in similar writings of the day. But he will be far more permanently and sincerely impressed by the vigour and dignity of their style. careful rounding off of the lengthy periods, and a certain typically 18th century pomposity, prove the author to have been an earnest admirer of the Ciceronian tirades, yet, in spite of his indebtedness to classical models, Junius, whoever he was, had a command over language which was original as well as splendid. There are cogent arguments in favour of regarding Sir Philip Francis as the unfathomable Junius, but the claims of a host of far more distinguished men, including Burke, Lord Chatham himself, Wilkes, Barré, and Horace Wal-pole, have one and all found eager pole, partisans.

Junius, Franciscus (1545-1602), born at Bourges in France. He is best known by his own edition of the Latin O.T., slightly altered from the former joint edition, and with a

version of the N.T. added

Junius, Franciscus (1589-1678), son of the above, born at Heidelberg. He was brought up in Holland, but in 1620 went to England, where he became librarian to the Earl of Arundel. He was a student of Anglo-Saxon, Gothic, etc., and published the Gothic version of the Gospels, De Pictura Veterum, and Etymologicum Anglicanum, a valuable work.

Junk, a flat-bottomed, sea-going boat peculiar to China, which is em-ployed on the coasts and seas of China and Japan. It carries large masts with square sails of matting, and has a very high forecastle and Its progress is slow, and it is poop.

awkward to handle.
Junker, Wilhelm (1840-92), a

animals with whom he came in contact. In 1883 he was prevented from returning to Europe owing to the Mahdist rising, but managed to reach Zanzibar in 1886, and received the gold meal of the Royal Geographical Society in 1887. His Reisen in Afrika (3 vols., Vienna, 1889-91) contains an account of his travels and is a work of hish parit of high merit. An English transla-tion by A. H. Keane was published in 1890-92.

Junkers, the political party name given in Germany to the class of young nobles of military spirit who supported Bismarck before

Franco-Prussian War

Juno, a Roman goddess, equivalent to the Greek Hera. She was the to the Greek Hera. She was the daughter of Saturn and Rhea, and the wife and sister of Jupiter. was regarded as the counterpart of Jupiter, the queen of heaven and of earth. She was the protectress of all women, from the moment of birth till death. Hence, Juno Natatis was invoked by women on their birthdays; at the marriage of women Juno Julalis presided; and the help of Juno Lucina was cried for by women in childbed. Her festival called the Matronalia was celebrated on March

The month of June was called after her, and was thought particularly lucky for marriages. She was also regarded as the guardian of finance, a temple being dedicated to Juno Monda in 344, which was afterwards used as a mint. She was always

represented with attendant peacocks.

Juno, the third asteroid to be discovered, was found by Harding in 1804, the first, 'Ceres,' being found 1804, the first, 'Ceres,' being found by Giuseppe Piazzi, 1801, and the second, 'Pallas,' in 1802 by Olbers. Juno and Ceres are the largest of the planetoids, and present at opposition a visible disc about 1 in. in diameter, corresponding to about 400 m.

Junot, Andoche, Duc d'Abrantés (1771-1813), a French general, born at Bussy-le-Grand, in Côte-d'Or. He joined the volunteer army at the outbreak of the Revolution, and came under the notice of Napoleon at the siege of Toulon. He distinguished siege of Toulon. He distinguished himself in many campaigns, and in 1804 was made governor of Paris. In 1807 he was appointed to command the army for the invasion of Portugal, and was so successful that he was created Duc d'Abrantés, and made · de-

Junker, Wilhelm (1840-92), a 'man explorer of Africa, born at 'and cow. He studied medicine in the tingen, Berlin, and Prague, but going afterwards served in Germany and to Africa in 1874, began the work of Russia, but being blamed, withothers, his life, exploration. He visited Tunis for the great Russian disaster, was and Exprt, and explored the Upper sent to govern Hlyria. This, added to Nile and the Wellé, investigating at his other misfortunes, brought on

mental derangement, and he took his more lustre than Sirius, the brightest

life in a fit of madness.

Junot, Laurette de Saint-Martin-Permon, Duchesse D'Abrantés (1784-1838), wife of the marshal, was an able, extravagant, and intriguing woman. Her estates being confiscated in 1814, the Emperor Alexander offered their restoration on condition of her becoming a naturalised Russian. She refused and remained in Paris, supporting herself by the labours of her pen. She gained a reputation by her Mémoires, 1831-35, and also published Femmes Célèbres, 1833-35, and Histoire des Salons de Paris, 1837-38.

Junta, a Spanish word designating

Junta, a Spanish word designating a legislative or other distinguished assembly which meets either for political purposes or for the passing of laws. In 1808 a J. was elected to undertake the defence of the country (Spain) against Napoleon. In English history the word is used as a term of contempt for a legislative party, etc., e.g. the Whig junto in the reigns of

King William III. and Queen Anne and I. Three more moons were disquivalent to Zeus of the Greeks. He the Lick Observatory, 1904-5, and was saved as an infant by his mother Rhea from his father Saturn, who wallowed his male children immediately after birth. J. married his sister Juno. He was regarded as an elemental god, his name being contracted from Diespiter or Diovispater. He was the greatest of all the Olympian gods (Optimus Maximus) and was lord of hea

with his

Tonans, Fulminator, having power over rain, tempests, thunder and lightning. His temple at Rome stood on the summit of the Capitol, and when presiding over the Roman games he was called Jupiter Capitolinus. He was also known as Jupiter Latiaris, being patron of the Ferie Latiare. J. directed the course of human affairs, and was regarded as omniscient and prescient. He revealed the future by means of omens and signs, and was therefore designated as Prodigialis. His blessing was always invoked by the consuls on entering office and before any great undertaking. His worship at Rome was under the eare of the Flamen Dialis, the highest in rank of the flamines. He was represented as sitting on a throne with thunderbolts in one hand and in the other a sceptre of cypress. He was supposed to take delight in the sacrilice of white bulls, goats, and sheep.

Jupiter, the largest of the planets, and (if the sun. moon, and comets be island), an excluded) the second brightest object | Hebrides, Se in the sky (having about six times | Argylishire.

star), is one of the outer planets, and its orbit lies between those of the minor planets and that of Saturn. J.'s mean distance from the sun is five times that of the earth (483,000,000 m.), and its period is 11.86 years. Other data of the planet are as follows: Diameter, eleven times that of the earth (88,439 m.); mass, less than one-thousandth of the sun; density, slightly denser than water, the earth being four times as dense; rotation about axis, about ten hours; and gravitational pull at surface, 2.55 times more than the earth. J. is attended by eight satellites, four of which are just beyond the range of J.'s mean distance from the sun is five which are just beyond the range of naked vision, but can easily be seen with the aid of a pair of opera or fieldglasses. These four moons were discovered by Galileo in Jan. 1610, being one of the first-fruits of the newly-invented telescope. It was not till Sept. 1892 that Prof. Barnard, at the Lick Observatory, found a fifth satellite revolving between these four and J. Three more moons were discovered as follows: two by Perrine at the Lick Observatory, 1904-5, and one by Melotte at Greenwich, 1908. These recently discovered satellites can only be seen by high power instruments, but quite a small telescope will show the transits in front of J. of Galileo's moons and their eclipses in

nearly hal periods of Barnard's

Barnard's,

3½, 7½, and 16½ days; Perrine's, 251
and 265 days; and Melotte's, 2 years.
This latter satellite has a mean distance of 15,000,000 m. from J., and the direction of its revolution is opposite to that of all the other satellites. The surface of J. presents the appearance of a number of belts, and they can be detected with the aid of a small telescope. The surface of the planet is continually changing, but since 1878 the equatorial belt has had a large red spot. This spot has varied in brightness, and was just visible in 1907. It has been found that the belts or currents rotate at different velocities. These differences go to prove that J. is not a solid body, and the permanence of the red spot also favours this conclusion. The red spot would appear to be something in the nature of a floating island, an island having its base in the more solid regions of the planet. See Astronomy.

Jura (Scandinavian deor-oc, deer island), an island of the Inner Hebrides, Scotland, off the coast of Argylishire. It is separated from

Scarba on the N. by the whirlpool of Yorkshire (valuable ironstone in Corrievreckan, from Islay on the S. Cleveland) through W. Lincolnshire, by the Sound of Islay, and from the widening out near Northamptonshire,

mainland on the E. by the Sound of The greatest length is 27 m., the width varying from 1 m. to 81 m. Area 160 sq. m. It has a range of mountains culminating in the conical Paps of Jura (2751 and 2412 ft. high). The inhabitants are engaged in fish-

ing, agriculture, and the raising of live stock. Pop. (1911) 570.

Jura, a dept. of France, originally

part of Franche - Comté, having Switzerland for its eastern boundary. The dept. consists of a mountainous region, traversed by the Jura Mts. a vine region, and a plain situated in the W. The chief rivers are the Doubs and the Ain, both of which belong to the basin of the Rhone. The soil is fertile, and produces grain, the vine also being largely cultivated. The chief minerals are iron, coal, marble, and rock-salt, while the industries comprise the manufacture of watches and clocks, and the making of Gruyère cheese. Cap. Lons-le-Saunier. Area 1951 sq. m.

Pop. 252,713. is. This range of Jura Mountains. mountains extends for about 190 m. from the dept. of Ain in France in a north-easterly direction through Switzerland, traversing the cantons of Vaud, Neuchatel, and Bern to the or Vaud, Neuchatel, and Bern to the R. Rhine. They are made up of parallel ranges, the chief heights in which are Crêt de la Neige (5655 ft.) situated W. of Geneva, the Dôle (5505 ft.), Colombier de Gex (5548 ft.), and Mont Tendre (5519 ft.). These mountains consist chiefly of lime-stone, known as Jurassic, a term applied to the whole system in this division of geology awing to the predivision of geology owing to the pre-ponderance of this limestone in these particular mountains. The mountains are covered with forests and intersected with fissures.

Jurassic System, The, is the middle system of the Mesozoic or secondary group, and separates the Cretaceous system above from the Triassic

give their name to the system; more or less isolated patches occur in Central and N. Russia, in the Crimea, Caucasus, Carpathians, etc.; though 's complete in s an important

ch in reptilian of the system

N.W. of the Cretaceous deposits run- the Middle and Upper Colites form ning in a curving line from the N. of an argillaceous series again, the lime-

thence to S. Gloucestershire and to Dorset (with the useful Bath and Portland 'freestone'). It was long ago remarked by Dr. Buckland that a line through England from the mouth of the Tees to the coast of Dorset corresponding to the base-line of the J. S. would divide the country into two dissimilar parts contrasting strongly in physical and economic aspects.] Only very small areas occur in the rest of Britain, as in Sutherland and the Island of Skye in Scotland, and near Lough Foyle in Ireland.

Formations of the Jurassic system. The subdivision into formations has extended from the first separation into Oolites and Lias until the following classification has been made, partly based on the original British species, but applicable over much

wider areas.

Upper (Portland) Purbeckian Portlandian Oolites Kimmeridgian Corallian Middle (Oxford) Oxfordian Oolites l Čallovian Lower (Bath) Bathonian Bajocian Oolites (Toarcian Lias Liassian (Sinemurian

These subdivisions have been further divided by Von Mosisovics into zones characterised by different forms of ammonites, 32 in all, with 14 in the Lias, 8 in the Lower Oolites, 6 in the Middle Oolites, and 4 in the Upper Oolites. Other classifications give the Upper and Middle Oolites together under the name of Malm, and the Lower Oolites as Dogger. In Germany the Lias is spoken of as Black Jura, the Lower Oolites and part of the Middle as Brown Jura, and the remaining part of the Middle together with the Upper Oolites as the White Jura.

Characters of the strata.—The rocks of the J. S., like those of the Lower Cretaceous system (q.v.), may be regarded as having been deposited during the first shallow-water phase of the third marine period, but this phase was marked by very varied marine changes resulting in very diverse strata. The Lias is essentially a clay formation with coaciant lies. a clay formation with occasional band of limestone and ironstone of varying occur throughout India, S. Africa, thicknesses; in the Lower Oolites the S. America, and Australia. In S. bands of clay are only subordinate to Britain the J. S. lies to the N. and the highly developed limestones, but

stone being discontinuous and some-late: Guerres maritimes sons la times absent. Viewed br 2 l'Empire, 1864; La Jurassic rocks are of three refois, 1865; La Marine deposits, viz. Lias, Oxford, and the de la marine et la Tactique naturelle,

deposits, viz. Lias, Oxford, and the meridge clays alternating with the other deposits of varied lithological character. This argillaceous character of the system is frequently overlooked on account of the greater variety of fossil remains in the non-argillaceous

deposits.

Life of the Jurassic period .- The rate of change in the organic world and the differentiation of species appears to have become much more rapid in Jurassic times, so that separate descriptions are required for quite small sets of strata. Broadly, it was an age of Reptiles, e.g. Dinosauria, Pterosauria (commonly known as Pterodactyls), Ichthyopterygia, and Sauropterygia, which survived to Cretaceous times. Dinosauria were land animals from 20 to 40 ft. long, and doubtless resembled the modern kangaroo in method of walking. Pterosauria were capable of flight, while the other two orders were adapted for life in the sea. True birds appear, though none have hitherto been discovered in the British Jurassic rocks. The two specimens from the Solenhofen slate of Bavaria, Archwopteryx macrura, have been placed in a special order, Saurura, of their own. Marsupials appear for the first time. The period is noted for a great abundance and variety of Ammonites, while Belemnites appear in the Lias and reach a maximum development in Jurassic times. Several species of the genera of Lamelli-branchia were abundant, as were also the true Echinids. Corals abound in most of the limestones. The flora is of such a nature that botanists have termed the Jurassic period the age of Cycads. Ferns continued common, and conifers were represented by genera allied to the modern Araucaria cypress and yew. The general re-semblance of the flora and fauna of Jurassic times to modern Australian flora and fauna lends support to Wallace's theory that Australia was severed in Mesozoic times, and its isolation has furnished a local survival of a once widespread series of organisms. The actual existence of genus Trigonia (characteristic of Mesozoic strata in Britain) in the Australian sea is of special interest.

Jurien do la Gravière, Jean Pierre Edmond (1812-92), a French admiral, born at Brest. He entered the navy in 1828, and was in command of the French Medicaranean fleet during but also the Franco-German War of 1870, great-shi becoming director of charts in 1871; both he is chiefly famous as a writer on river, or naval history, and among his works country.

de la marine et la Tactique naturelle, 1891. Jurieu, Pierro (1637-1713), a French Protestant theologian, born at Mer

Protestant theologian, born at Mer in Loir-et-Cher. He studied in England under his uncle Pierre de Moulin, and in 1674 was made professor of Hebrew at Sedan; but when that university was taken from the Protestants he settled at Rotterdam. He defended the doctrines of Protestantism with great ability, and in his Accomplissement des Prophéties, 1686, foretold the overthrow of the Papal Church in 1689. Besides this he wrote; La Politique du Clergé; Histoire du Calvinisme et du Papisme mis en Parallèle; Histoire des Dogmes et des

Cultes; and Lettres Pastorales Adressées aux Fidèles de France.

Jurisdiction means the authority by which the law courts are entitled to decide matters litigated, or questions tried before it. The High Court has plenary J. all over England and Wales; but the J. of inferior courts (q.v.) is limited by being confined to certain limits of space and to certain kinds of causes or matters in dispute. Where the civil courts of inferior J. purport to act in a matter in excess of their J. the aggrieved party may get the cause removed to the High Court by writ of prohiberi; and where a party is convicted in a criminal court that has no J. in the matter the proceedings may be moved into the King's Bench Division by writ of certiorari (q.v.). British subjects who commit murders or manslaughters on land in foreign countries are triable in the British courts. As to ecclesiastical J. see under Ecclesiastical COURTS. In Roman theological writings ecclesiastical J. denotes the power which is concerned with the worship of God and the salvation of souls, conferred by pontifical com-mission. States belonging to the family of nations (see under INTER-NATIONAL LAW) claim exclusive J. on the sea to a distance of one marine league from the shore. By the Territorial Waters Jurisdiction Act, 1878, 'territorial waters of His By the Hig Majesty's dominions' means any part of the open sea within one marine league of the coast measured from low-water mark. The J. of the Admiralty Division in the case of British ships and all those on board. extends not only over the high seas, but also in foreign rivers 'as far as great ships go '; but not to any cinque port, haven, or pier, nor to any creek, river, or port within the body of a

became

Jurisprudence, literally signifies a an indifference which Sir Frederick persons Pollock attributes to the fact that he Romans sometimes or general e which is concerned with the exposition of the principles common to all

legal systems, or, as Austin has it, the maturer systems of positive law. Ulpian defined it as the 'knowledge of things divine and human, the science of the just and the unjust,' a definition adopted in the opening words of the *Institutes* of Justinian. The Roman conception of J. was eminently consistent with a legal system which, however practical in application and concise in principle, was in its litera-ture curiously intermingled with philosophical aphorisms and theories borrowed from the Greeks and, especi-I this wide ally, differ man and Engl ke that of

in defini-Aust tions of modern continental juristic fore, are conventionally irrelev writers, who, with their love of Naturrecht, either never really mark a clear distinction between law as it is and law as it ought to be, or else ciples, while some touch on the state as a condition of the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a condition of the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a conditional law as it ought to be, or else ciples, while some touch on the state as a conditional law as it ought to be, or else ciples, and the state as a conditional law as it ought to be, or else ciples, and the state as a conditional law as it ought to be, or else ciples, and the state as a conditional law as it ought to be, or else ciples, and the state as a conditional law as it ought to be, or else ciples, and the state as a conditional law as subordinate positive law to Bentham called deontology.

common notions as property, possession, things which can be the objects intestacy, and actionable wrongs, and to reduce all those comprehensive termination of facts in the adnotions to some general form with ministration of civil or criminal which other pa: of property, contracts, testaments, intestacy, and actionable wrongs, and

may be compar

English current idea of the scope of J. as evidenced by continental schools marks a peculiar development of libertic English thought, and indeed the philosophy of the formal abstract conception of de facto legal relations liberty conception of the formal abstract conception of de facto legal relations liberty. expounded by Austin, inspired by Hobbes, and elaborated by Bentham, is virtually indigenous to England. There is no ethic in English J., notwithstanding Austin's remarkable excursus into the Utilitarian philosophy, whereas in the Ciceronian conception J. was that of an art having for its lofty aim nothing less than the pursuit of truth; and indeed there floated always before the eyes of the later Roman jurists a vision of a jus naturale, a set of rules of inherently universal application upon which they built up their jus gentium (q.v.), and it is this very broad ethical conception that links the Roman juristical writings with the treatises of Norman custom of inquest by continental writers. The Germans so sworn recognitors, the principle of far have not regarded the English which was adopted as an alternative method as worthy of much attention, mode of trial in criminal cases when

whereas in England the positive law of the land has for centuries been 'single, strong, and conspicuous in all public life,' and therefore presented itself as an adequate object for distinct scientific study, in Germany, by reason of the large number of small independent states, each with its autonomy looking albeit beyond its own positive system to a common stock of Romanised German tradi-

tion, that ultimate source of principles

the

immeasurably

attractive subject for scientific study. By a kind of common consent, due perhaps to the very wide ramifica-tions of Hobbes, Bentham, Bodin Beccaria, and others, J. has been limited to the inquiry into the ultimate principles of either positive law or *Naturrecht*, or a compound of both, without encroaching on the domain of political science. Theories of sovereignty and legislation, therefore, are conventionally irrelevant, though all jurists analyse the con-ception of the state as a condition precedent to expounding legal pringislation and political purely with a view to

ing to the English school it xact place of positive function of general J. to explain such law among allied sciences. See Austin's Jurisprudence; T. E. Holland's Elements of Jurisprudence;

to decide facts truly accordthe evidence produced before The institution is one of the most cherished guarantees of British liberties, and historians in their en-thusiasm have often seen its origin in the general statement of liberty of the subject expressed in Clause 39 of Magua Charta, which declares that no freeman shall be imprisoned or outlawed except by the judgment of his equals lawful (suorum parium judicium). But this clause referred to the trial per pares or per sectatores in the old county or shire courts, an institution which has long been generally admitted to have been of a totally different character. Simple, indeed, as the definition of a modern petty J. may appear, the evolution of that body has been notoriously a subject of keen controversy, though, according to the best opinion, its genesis may with some confidence be sought in the

ascertaining the truth of a criminal accusation. The vital fact of importance in the evolution of the petty J. (as opposed to the Grand I) in that J. (as opfrom be persons acts of the case and able to come to a other independently evidence, they ultimately became mere judges of fact. But exactly how when the transition to the status of arbitrators occurred are difficult questions to answer, and the stereotyped theories on the matter seem unsatisfactory when it is realised how utterly opposed arbitral functions are to those of giving evidence. One highly ingenious theory traces the transition to a practice based on convenience, by which the recognitors or witnesses were physically separated in the court from those who came from the neighbourhood of the crime but knew nothing of the facts, though why the former should have laid their evidence before the latter is not explained. In the form in which it existed for several centuries after the Conquest, the traces of the trial by J. are more distinctly discernible in the ancient Norman customs than in such fragments of Anglo-Saxon laws as have down to us. The canonical institu-tion of trial by twelve compurgators who merely gave general evidence as to a man's character, resembled the trial by J. in no other respect than the number of persons sworn, and that that institution was no progenitor of the J. is conclusively established by the fact that it continued, under the name of 'Wager of Law,' side by side with the J. down to 1833. A number of notable writers. including Forsyth (History of Trial by Jury), see in the trial by J. a purely indigenous growth. Yet others ascribe its origin to the twelve senior thegas of Ethelred's time, who were sworn to accuse none falsely; but that institution is far more probably the ancestor of the modern Grand J. The now generally accepted theory is that of Palgrave as corrected by Dr. Brunner (Entstehung der Schwurgerichle), which, as noticed above, traces the descent of the petty J. from the system of recognition by sworn inquest, which was probably a direct legacy through the Normans from the Event Legacy through the Normans from the Frank capitularies.

the Lateran Council of 1215 abolished the recognitors to appear is verbally the ordeal in England as a means of a re-echo of the present form of J. process, by which the sheriff is com-manded to return 'good and lawful men of the neighbourhood, by whom the truth of the matter may be better known,' etc. But whatever view the antiquarian may take of the actual genesis, the development through the existing machinery of the shire-moot by Henry II. of the Anglo-Norman system of inquest or inquiry behalf of the crown into facts sworn recognitors, was not only the undoubted forerunner of our J., but an exclusively English development. Under Henry II., trial by recognitors was mainly used at first as an alterna-tive to trial by battle in disputes concerning the title to land. The actual practice was to select twelve knights from the neighbourhood who were obliged to declare on oath which of the parties had the better right, and if not unanimous, the original body was 'afforced,' i.c. others were added until twelve were of one mind. As soon as the twelve become stereo-typed into arbiters ignorant of the facts as distinct from witnesses, we have the true civil J., and probably the same steps are discernible in the evolution of the criminal petty whose primary function was to test the truth of a criminal presentment by an accusatory J. (jurata delatoria) or, as we call it, a Grand J. The early history of the English criminal is uncertain, but it is clear from Bracton and Fleta that at the end of the 13th century it had become the normal mode of trial, having gained ground with advancing civilisation, and superseded the more ancient and barbarous customs of battle, ordeal. and wager of law. The Js. now in use in England in the ordinary courts of justice are grand, special, petty, or common Js. Grand Js. are exclusively incident to criminal courts, and they are summoned by the sheriff to charges examine into of crimes brought before them at assizes or borough sessions. There is no qualification by estate for grand jurors. but those of the borough sessions must be burgesses (q.v.). The grand jurors of the assizes are generally men of good social standing in the county. The number summoned on a grand J. must not be less than twelve nor more than twenty-three. so that there may be a majority of twelve. After being 'charged' or from the Frank capitularies. The twelve. After being 'charged' or incidents of the analogous mode of addressed by the judge, chairman, or trial prevalent in Normandy long recorder as the case may be, the before the Conquest, correspond in a Grand J. retires to its own room with striking manner with those of the the bills of indictment (q.r.), and later trial by J., and though unlike the bills of indictment (q.r.), and the institution as described by Gland with sees for the prosecution on oath ville and Bracton, the mode of citing case against the accused. If they are master, barristers, solicitors, of that opinion they return a 'true bill,' and the case goes for trial before the petty J., if not, they throw in practice, solicitors' man the bill out and the accused is discharged, though he may, if additional cyldence be fortherming. tional evidence be forthcoming, be charged before another grand J. This process is repeated with each of the bills preferred to them until all are disposed of. The qualification of petty or common juros is set out in the Jury Act, 1826, and the Juries Act, 1870. All jurors are liable to serve on petty or common juries, but yeselal jurors must have certain special qualifications. Every man between the area of twenty. tional evidence be forthcoming, be charged before another grand J. This between the ages of twenty sixty is qualified to serve or

sixty is qualified to serve of common J. at the High cor common J. at the High corrections of the peace, and on both the grand and petty Js. at the county sessions, provided: (1) He is in receipt of a police magistrates and their officials, clear yearly income of £10 out of streehold lands in the county of his residence, or £20 a year from lease-hold lands held by lease for twenty-the overseers and churchwardens or leaves or leaver or for a term of some other lease and policy during the one years or longer, or for a term of years determined on any life or lives.
(2) Being a householder, is rated (poor rate) or assessed to inhabited house duty in Middlesex to the value of not less than £30, or, in the case of any other county, not less than £20. A special juror must be either: (1) An esquire or person of higher degree, (2) a harlon on morehant (2) in (2) a banker or merchant, (3) in occupation of a private dwelling-house assessed to the poor rate or to the inhabited house duty on a value of not less than £100 in a town containing a population of 20,000 inhabitants and upwards, or not less than £50 in any other town, or (4) in occupation of premises other than a farm rated or assessed on a than a farm rated or assessed on a value of not less than £100, or, in the case of a farm, not less than £300. Special Js. are for the most part summoned for civil cases, but they may be summoned for certain criminal cases, viz. in misdemeanours by permission of the Court of King's Bench (as to the criminal jurisdiction) of this court see under King's BENCH) on motion of either the pro-KING'S ecutor or the defendant. Jurors for the City of London must be either householders or occupiers of premises, and in addition, possess property of some description to the value of £100. Persons above sixty are exempt from J. service. Women may only serve on a J. of matrons to determine the

solicitors, actually practice, solicitors' managing clerks, officers of the law courts, and officials connected with prisons and public lunatic asylums, officers in the country police and icillors of municipal cor-

some other local authority during the first three weeks of every September, and affixed to the church doors of the parish during that time. The lists are then revised by the justices at special petty sessions in the last week of septembers and chircipar the special petty sessions in the last week of September, and objections to in-clusion to be of any avail should be consists to be of any avan should be lodged with the overseers or other local authority before the justices revise the list. A juror is entitled to six days' notice of the time at which he is required to attend, and if he is prevented by illness from attendance he must send a medical certificate to that effect to the associate of the court to which he is summoned. A special juror is customarily allowed a fee of 1 guinea in respect of each action which he is sworn to try. Counsel who succeeds in the action in variably asks the judge to certify for the special J., where there is one and his client has summoned it, and the judge includes the fees in the the judge includes the less in the costs if he thinks the case a proper one to be tried before a special J.; if he thinks otherwise the party summoning such special J. bears the expense. Common jurors in civil actions are allowed no more than 1s. a case; in criminal actions nothing is paid. County court Js., formerly composed of five, now consist of eight members. They are not often re-sorted to, and it is well known that county court judges as a body are constrongly opposed to having time The wasted and their faculties implicitly cers, condemned by summoning such Js. one question whether a female convicted of murder is enceinte. The wasted and their faculties implicitly following are also exempt: Peers, condemned by summoning such Js. judges, Roman Catholic priests, to assist them. Jurors may be obmembers of parliament, dissenting jected to or 'challenged,' as it is ministers following no other secular termed, and either party may exercise occupation than that of school-this right which is of two kinds: (1) Challenge to the array, or an objection to the whole number of jurors on the panel on account of some reason alleged against the sheriff who summoned them; (2) challenge to the poll, i.e. to some particular jurymen or jurymen on one or more of the following grounds: (a) That the juror march as a peer, or is (b) not properly qualified, or (c) is likely to be biassed, or (d) has been convicted of some crime or misdemeanour. For the history of Js. see Taswell-Langmend, English Constitutional History; Forsyth, History of Trial by Jury; Forsyth, History of Trial by Jury; Frunner, Enstehung der Schwurgerichte; Stubbs, Constitutional History; Philipps, On Juries; and Pagrave, English Commonwealth.

Jurymast, a temporary mast which is erected on a ship in the place of

one lost or destroyed.

Jus Devolutum, in old Scots law, the right of the bishop of a diocese to appoint an incumbent (q, x) to a vacant living if the owner of the right of presentation does not exercise his right within a prescribed time.

his right within a prescribed time.

Jus Gentium, t.e. law of nations, was the body of laws administered in ancient Rome by the pretors and which, evolved as it was by a process of selection of such rules as by their inherent force and reasonableness commended themselves as principles of natural justice, was applied to outlying nations under Roman dominion. The English law merchant owes many of its essential principles to

lying nations under Roman dominon. The English law merchant owes many of its essential principles to those of the J. G.

Jus Mariti, in Scots law, the unlimited right of a husband, prior to the Married Women's Property Act, 1881, to manage and dispose of the movable estate of his wife, whether belonging to her at the date of marriage or only acquired subsequently. The J. M. was only lost by express renunciation, or by exclusion by an antenuptial marriage contract. The Act of 1881 abolished the J. M., except as to eases where the marriage was contracted and the wife acquired

was contracted and the wife acquired property before July 18, 1881.

Jus Primæ Noctis, literally denotes the right of concubinage on the first wedding night. According to some historians, the medieval fendal law gave the lord the J. P. N. with his tenants' wives on their first wedding nights. Blackstone repudlates the assumption that so barbarous a custom ever existed in England or Scotland, though it has occasionally been adduced as a plausible explanation of the custom of Boroughing and the custom of the origin of the light of the custom to the lord on the custom the tenant to the lord on the tenant to the lord on the custom the tenant to the lord on the tenant to the lord on the tenant the tenant to the lord on the tenant the

right by way of casualty (a.v.). Malcolm III. repealed the ordinance and decreed that the bridegroom should pay a sum of money (called marca) as compensation. Hence the Scottish term merchet, or merchela mulierum, to denote the old form of the marriage tax in the charters of Robert I. Some Scottish historians (notably Hailes and Professor Cosmo-Innes) deny that the custom existed in Scotland, and explains the term marcheta to mean a fine paid by a villein either when his unmarried daughter happened to be defiled, or daugnter happened to be defiled, or by way of compensation to the lord for giving her in marriage to a man not subject to the jurisdiction of the lord. According to certain French writers, the J. P. N. was synonymous with the droit de seigneur, but others consider that the latter term merely connoted the insistence of the church on continence in brides. The term, according to Schmidt, Veuillot, and others, had a quasi-religious significance, as exemplified in parts of China, where priests were said to deflower virgins at the express request of the girls' parents, and in Western India where J. P. N. was extended to men of assumed divine caste. See K. J. L. Schmidt's Jus Prima Noctis, 1881; Blackstone's Commentaries (vol. 2); Bell's Dictionary of Scots Law; Veuillot, Droit du Scimeur. connoted the insistence of the church Scigneur.

Jus Relictæ, in Scots law, the right of a wife after the death of her husband to one-third of his movable estate if he dies leaving children, and to one-half if he leaves none. The husband, by the Married Women's Property (Scotland) Act, 1881, has a corresponding right, called the jus relicti, in the wife's property. The widow is not disentitled by reason of having been previously provided for by her husband. Unless, in accepting such provision, she expressly renounced her right, and such renunciation is only effectual to bar her J. R. if it be shown that she was fully aware of the extent of her legal right. They husband cannot affect the J. R. by any testamentary or other deed.

Jusserand, Jean Adrien Antoine Jules (b. 1855), a French politician

Jusserand, Jean Adrien Antoine
Jules (b. 1855), a French politician
and writer, born at Lyons. In 1870
he began his career as a diplomat,
during which he fulfilled several important missions. In 1902 he was
appointed ambassador in the United
States. Among his writines may bo
mentioned: Le Thédire en Angletere
depuis la conquele jusqu'aux prédécesseurs immédiats de Shakespeare, 1878;
Les Anglais au moyen agr. 1881; Le

littéraire du peuple anglais des origines à la Renaissance, 1894.

Jussieu, De, the name of a French family of botanists. Among its chief

members may be mentioned:
Antoine (1686-1758), born at Lyons, and was made professor of botany in Paris, as the successor of Tournefort. He published several books, among them Tournefort's Institutiones rei herbaria, 1719, edited by him.

Bernard (1699-1777), also born at Lyons, was the superintendent of the gardens at the Petit-Trianon, and to him is due the beginning of the arrangement of the plants according to a natural system, a method completed by his nephew. He edited Tourne-fort's Histoire des Plantes qui naissent

dans les Environs de Paris, 1725. Antoine Laurent (1748-1836), nephew of Bernard, was in 1770 made professor of botany at the Jardin des Plantes, Paris. His Genera Plantarum, 1789, is the foundation for the modern method of botanical classification. He also published articles in Annales du Museum, 1804-20, and in Dictionnaire des Sciences Naturelles.

Adrien (1797-1853) is remembered his publications on Rutacem. for Meliaceæ, and Malpighiaceæ, as well

Laurent Pierre (1792-1866), nephow of Antoine Laurent France the Antoine Laurent, and a French writer on education. His chief work is Simon de Nantua, 1818, translated into several languages.

Juste Milieu (French), signifies the exact mean. In reality it is a medium course between extremes, and was used as a political term after 1830in the time of Louis Philippe-to describe the existing system of government.

Juste, Théodore (1818-88), a Belgian historian, and a native of Brussels. In 1859 he became curator of the museum of antiquities in that city, and eleven years later professor of history. Among his many works may verdict, finding, or judgment.

be mentioned: Histoir 1840; Histoire de la . Pays-Bas sous Philippe ! ... Le soulèrement de la Hollande en 1813

el la fondation du royaume des Pays-Bas, 1870; Guillaume le Taciturne, 1873; and Les fondateurs de la mon-archie Belge, 1865-81.

Justices, Lords, the L. J., who are five in number, form, together with the Lord High Chancellor, the Lord Chief Justice of England, the Master of the Rolls, and the President of the Probate, Divorce, and Admiralty Division as ex officio members, the penultimate Court of Appeal for England and Wales. In practice, the

Roman anglais, 1886; Le Roman au officio judges sits as a regular member temps de Shakespeare, 1888; Histoire of the Court of Appeal. Ordinarily there are two courts of appeal of coordinate jurisdiction, one consisting of three L. J., and the other of two L. J. and the Master of the Rolls. An ex-lord chancellor is also entitled to sit in the Court of Appeal, and provision is also made for calling in a judge of the High Court to reinforce the Court of Appeal when necessary. At the beginning of 1913 a third court was constituted temporarily, for the purpose of disposing of arrears of pending appeals. This Court of Appeal was established by the Judicature Act, 1873, as a superior court of record, and it was intended that there should be no appeal from its decisions either to the House of Lords or the Privy Council; but that provision of the Act of 1873 was finally repealed, after being suspended, by the Appelate Turisdiction Act. 1876. To the late Jurisdiction Act, 1876. To the Court of Appeal was transferred all the jurisdiction and powers of: (1) The Lord Chancellor (as titular head of the Chancery Court), and of the old Court of Appeal in Chancery, in his and its appellate jurisdiction, and of the same court as a court of appeal in bankruptcy. (2) The Court of Appeal in Chancery of the County Palatine of Lancaster, and of the appellate powers of the Chancellor of that duchy. (3) The Court of the Lord Warden of the Stannaries and his committee of the Privy Council, or the King in Council, as to any appellate jurisdiction from a judgment of the Admiralty Court, or from any order in lunacy. Subject to certain exceptions, an appeal lies from the High Court to the Court of Appeal from every judgment or order of the High Court, but no appeal lies to it in criminal matters, and in the case of any inferior court (q.v.) only by leave. The procedure on appeal is by motion either for a new trial or to set aside a motion must state the application, ٩f the or part only of the finding

Tustices

is complained of, and the court may order the appellant to give security for the costs of the appeal. trial may be granted on any one or more of the following grounds: (1) Misdirection by the judge; (2) misreception of evidence or erroneous rejection of evidence by the judge: (3) misbehaviour of the jury; (4) excessive or inadequate damages: (5) discovery of fresh evidence; (6) total absence of evidence for the jury; (7) verdict against the weight of evidence: (8) surprise -a term used to denote all Master of the Rolls alone of the ex cases where the appellant, through no

getting a fair trial, e.g. by his opponent keeping a material witness away, or misleading him as to the time of the trial. It is a rule of the Supreme Court that there is no appeal from an order of a High Court judge as to costs, such matter being entirely within the discretion of the judge making the order. In most cases a party has a right of appeal without leave, although the judge whose order or judgment is being appealed against may, on notice of appeal being given, refuse a stay of execution or impose certain terms as to paying money into court, as a condition of appeal. An appeal lies without leave where the liberty of the subject or the custody of infants is concerned; in cases where an injunction (q.v.) has been refused or granted from decisions determin-ing the claims of creditors; and in a few other cases. From the Court of Appeal there is a right of appeal to the House of Lords, but it is an ex-

tremely expensive process.

Justices of the Pence. These are unpaid magistrates inferior and appointed by the Lord Chancellor on the recommendation of the Lord Lieutenant of a county, to keep the peace within the county, borough, riding, liberty, or other division in which they are appointed. The title of J. of the P. dates from 1360, when Edward III. vested a criminal jurisdiction in the Jd Concentration diction in the old Conservators of the The germ of these latter is virtule off by Bishop Stubbs (Select borough by Charters) in the appointment by Arch-bishop Hubert as abiot justice in 1195 of knigl

mainter Edictun other years, knights were assigned to keep the peace, and in Edward I.'s reign custodes pacels were sometimes elected by the county freeholders. One of their principal functions was One of their principal functions was the enforcement of the Statute of Winchester, 1285. Edward III. gave them the general power of trying practically all felonies, and in course of time they gradually usurped all the powers previously exercised by the Shire Moot. An Act of Henry VII. empowered J. of the P. to try all offences except charges of treason, murder, and felony, and from that murder, and felony, and from that date their power as a body of criminal judges declines. But for long they exercised multitudinous duties local government, and among the charges, admitting to bail persons earliest of such duties were those of accused of felony, the hearing of incollecting benevolences, maintaining formations and complaints, and cerbridges, highways (q.v.), and public tain other purposes. The Lord Mayor, buildings, granting licence the aldermen of the City of the aldermen of the City of ing local officials, and local finance. The bulk of

fault of his own, was prevented from transferred to the county councils (q.v.) by the Local Government Act, 1888. But by means of a joint committee, the J. of the P. and the county councils jointly superintend the county police. The Act of 1888 did not interfere with the judicial work of J. of the P., and the decline in their criminal jurisdiction was rather a consequence of the practice of remitting the more serious felonies to the assizes; a practice now hardened in a statutory provision to the effect that the criminal jurisdiction of the Quarter Sessions (see County Sessions) is now confined to the trial of certain minor felonies and misdemeanours. There are several classes of J. of the P.: (1) Those named in the schedule to the Commission of the Peace, for a particular county, division, borough, or liberty. In these cases it is believed that the Lord cases it is believed that the Lord Chancellor has power to appoint in-dependently of the Lord Lieutenant's recommendation (see Report of Royal Commission on Selection of Justices, 1910). The post of county justices, formerly remunerated by a scale of wages regulated by a statute of 1389, is now purely honorary, and since 1907 the old property qualification of £100 a year, or the necessity for any property qualification, has been abolished. (2) The Lord Chancellor, the Lord President of the Privy Council, the Lord Privy Seal, the judges of the High Court, the Attorney-General and Solicitor-General are J. of the P. virtule officii. (3) County court judges, recorders, metropolitan police court magistrates, and others by reason of holding certain judicial offices, acquire the of J. of the P. (4) Mayors of

> ex-m one chairmen of county and district councils (a woman is incligible), The mayor and aldermen of the City of London. Borough justices are now appointed under the Municipal Corporations Act, 1882, but a borough can petition the crown for the appointment. to be ap

> tary. If who must be a barrister of at least seven years standing, has all the powers of two or more justices sitting as a petty sessional court. Petty sessions are sittings held by two or more J. of the P. for the disposal of minor

. r any police or stipendiary sitting in a court-house, ministrative duties have now become where he has the usual power of two court-house. A single magistrate sitting alone has very circumscribed powers. He can hear a charge prior to committing for trial, release a prisoner on ball (q.v.), take his recognisoner to account the prisoner of the pris nisances to appear, and dismiss a case when the evidence is not strong

enough to justify committal.
There have been cons considerable accessions in recent years to the judicial powers of J. of the P. They are empowered to grant judicial sepa-rations between husband and wife, and make maintenance orders against a husband in favour of his wife up to £2 per week; they can make bastardy orders, licence places for the sale of intoxicating liquors, and exercise limited powers in ejectment (q,v_*) . generally speaking, restricted to cases where the rent does not exceed £20. J. of the P. have wide ministerial duties and powers, e.g., under the Elementary Education Acts, in default of the county councils; the imposing of highway (q.v.) rates; granting exemptions under the Truck Acts; and licensing drivers of motor cars. See on this the Report of Royal Commission on Selection of Justices, 1910. See also The Justice of the Peace and

Justicia, a large genus of acan-thaccous plants found in all tropical parts of the world, but preferring damp woods. Only a few species are cultivated as ornamental plants.

Justiciary, High Court of, the supreme court for criminal causes in Scotland. There is no court of Criminal Appeal for Scotland other than this court itself, and no appeal from the decisions of the H. C. of J. Scotland. to the House of Lords. Its decisions are therefore final. The court sits various of its judges go on circuit six times a year to Glasgow, four times to Aberdeen, Dundee, and Perth, and twice a year to Ayr, Dumfries, Inverary, Inverness, Jedburgh, and Stirling; but special sessions may be held at any convenient town. Its membership comprises the Lord Justice-General, the Lord Justice-Clerk, and cleven Lords Commissioners of Musticiary, i.c. the whole of the Lords of Council and Session and Senators of the College of Justice. A single judge usually sits, except in cases of special importance or when the court is sitting as a Court of Appeal, in which latter case three judges form a quorum. Its jurisdiction extends to any crime against public law committed by a British subject or a foreigner, in Scotland, or partly in Scotland and partly abroad, or committed at sea if at the time the ship was within three miles of the coast of

justices, constitutes a petty sessional Scotland. Formerly certain crimes court-house. A single magistrate were triable only in the H. C. of J., such as robbery, rape, murder, and wilful fire-raising. But since 1887 the Sheriff-Court has had jurisdiction in all crimes except treason, murder, and rape.

Justifiable Homicide. Homicide by the English criminal law is justified in the execution of a criminal, in the prevention of a 'forcible and atroclous crime, (c.g. rape), and in the case of an officer of justice killing a person who prevents him from carrying out his duty. It is distinguished from excusable homicide, though the effect of the latter is the same. Homicide is excusable in self-defence, or

when it occurs by accident.

Justinian, the historian, flourished, it seems, in the reign of Antoninus Pius, but his personal history is a blank. His forty-four Historiarum Philippicarum libri, however, have lasted, though the compendious work of Trogus Pompeius, who lived in the days of Augustus, has unfortunately perished. Justin's *History* was merely a popular epitome of Trogus'. It must be confessed that Justin's redacton is somewhat free and careless, yet it gives many details and anecdotes about the Assyrians, Medians, Per-sians, Greeks, Macedonians, Carsians, Greeks, Macedonians, Car-thaginians, and Parthians, etc., which are not recorded elsewhere, and is written, moreover, in a good style. Gronovius published a good others have been issued.

Justinianus, Flavius Anicius (483-565 A.D.), ruled over the Eastern Roman empire as Justinian I. was born in Illyricum of obscure barbarian parentage. Justinus, the emperor, however, was his uncle, and as in the helplessness of his ago and ignorance he had learned to trust the energies and capacities of his nephew, who had profited by a liberal educa-tion in Constantinople, he wisely appointed him his successor. Thus Justinian came to the throne in 527. The outstanding features of his reign are his conquests and his laws, but a word must first be said of his personality and ecclesiastical policy. He is described as vain and somewhat fickle of purpose, but, on the other hand, he was a model of industry, and a man of wide interests and large public spirit. Thus he built and repaired many cities, bridges, walls, and nublic buildings, encouraged com-merce, and introduced into Europe the cultivation of silk-worms. Further he was virtuous in private life, indifferent to case and luxury, always courteous to friends, and easy access to strangers.

The Church received his constant

controversy, and as Justinian himself was at least suspected of Mono-

physitism and a more recent heresy, it is not surprising that his desire for peace was unfulfilled; indeed his rigorous persecution of pagans and heretics, and especially of the Phrygian Montanists and the Samaritans of Palestine, rather encouraged fanati-

cism and religious strife.

The warlike Belisarius and the skilful Armenian eunuch, Nares, won his Thus Africa was wrested from the Vandals (535) and Italy from the Goths (552); along the Danube there were successful skirmishes with the Bulgarians, Gepidæ, and Longobards, whilst in 562 a truce was made after a twenty years' struggle with Chosroes I. of Persia, whose encroachments on the eastern frontier were thus momentarily stayed. Yet Justinian has with some justice been accused of squandering the enfectled resources of the empire in recovering exhausted territory instead of strengthening the barriers against the Slavs and Huns in the N. and the Iranians to the E. The extraordinary Tribonian was

the animating spirit of his legal reforms. A body of ten scholars under Tribonian brought out the Code in 529, and a second edition followed in 534. Seventeen lawyers, again with Tribonian at their head, issued the Pandects, or Digests, in 533, having 'extracted the spirit of jurisprudence from the decisions and conjectures, the questions and disputes, of the Roman civilians 'in the astonishingly short period of three years-a feat all the more miraculous when it is realised that their work was an abridge-ment of as many as 2000 treatises. The Institutes, which was intended as a student's manual in the academies of Rome, Constantinople, and Berytus, preceded the *Digests*. Finally, sixteen edicts and a number of 'novels' edicts and a number of (Novellæ) completed his compilation, a compilation destined for centuries to be the basis of European codes. Though Justinian founded his work on the 'sages and legislators' of pas-ages, he paid little heed to any law-givers before the days of Hadrian, and thus abetted Time who was fast consigning the jurisprudence of the Roman republic to what to-day is regarded as a regrettable oblivion. Without belittling the services ren-dered by Justinian's constructive simplification of Roman law, it must be Feder (1906).

and carnest attention. By edict he acknowledged that Gibbon's descrip-denounced the heresies of Theodore, tion of his code as a 'tessellated pavement of antique and costly, but too often incoherent fragments, is a true one.

Justinianus II. (685-695 and 704-711 A.D., a Byzantine emperor, succeeded his father, Constantine IV. He made war on the Arabs and Bulgarians, and so roused the hatred of his subjects by his rapacities and persecutions that they rose in re-bellion under Leontius. The rebellion succeeded, and Leontius cut off the emperor's nose and drove him out of the capital. J. had his revenge in 704, when he surprised Constantinople

and put Leontius to death. He also slew Tiberius, his successor, and having recovered his imperial power, harked back to his former tyrannies.

Justinus, called Justin Martyr (c. 100-c. 165 A.D.), an early apologist of the Christian Church. He was born at Flavia Neapolis, now Nablus, in Samaria, of heathen parents, and was brought up in the philosophy of the Stoics and Platonists. In his Dialogue with Trypho the Jew he ascribes his conversion to Christianity to a chance conversation with an aged stranger, a Jew, at Ephesus, who directed him to study the O.T. prophets. After his conversion he continued the con tinued to wear his philosopher's cloak, disputing and lecturing at Ephesus, Rome, and other cities. The date of his martyrdom cannot be exactly determined; according to the Acta SS. Justini et Sociorum, it took place under the prefect Rusticus (163-167 A.D.), but some authorities quote the earlier date of 148. The two undoubtedly genuine works of J. are Apologies for the Christians, in two books, and the already mentioned Dialogue. The former is addressed to a cultured pagan audience, and to the modern student is of great value as a history of the early Christian Church. To a certain extent J. reconciles Christianity with ancient Greek cul-ture. The latter is a defence of primi-tive Christian theology as opposed to Judaism, and is an account of a two days' theological discussion at Ephesus. Other works ascribed to him are a Speech and an Address to the Greeks and an Epistle to Zenas and Greeks and an Episite to Zenas and Serenus, but their authenticity is very doubtful. The best edition is that of Otto, Justini philosophi a Mariuris opera quae feruntur omnia (5 vols., 3rd edition), 1876-81. For English translations, see the Oxford Library of Fathers (1861) and Clarke's Ante-Nicene Library (1868). Consult Donaldson History of Christian Christian Donaldson, History of Christian Literature and Doctrine (1866) and monographs by Kayo (1889) and

Justinus I. (518-527 A.D.), a Byzantine emperor, was a peasant boy of list the signal for harvesting, which Dacia, who enlisted in the guards of the Emperor Leo I. Endowed with months after the sowing. The stalks, the soldierly virtues, he rapidly rose which are either cut down with the to general, and on the death of the Emperor Anastasius, being then cap-tain of the guards, he was chosen emperor. His illiteracy was such that he did not even know his alphabet, but Proclus, the quæstor, proved a trusty servant of state. At the in-stance of his nephew, Justinian, he healed the breach between the Greek and Roman Churches. The responsibility for the regrettable murder of Vitalianus, the consul, rests rather with the nephew than Justinus.

Justinus II. (565-574 A.D.), a Byzantine emperor, succeeded his uncle, Justinus I. At the request of the Romans he deposed Narses, the Goth, Longinus made exarch Ravenna in his stead. It was the invitation, it appears, of the turbu-lent and humiliated Narses which brought the Longobards under Alboin like a torrent over the Alps and thus lost the whole of Northern Italy to the empire of Constantine. There were risings, too, in Africa, and the Persians overran Asia. Meanwhile J. sat impotent at home, a victim of a painful and disabling disease. He abdicated four years before his death.

obtained from two species of Corchorus, namely, C. capsularis and C. olilorius, the products of which are both so similar that economically no difference is recognised. Corchorus belongs to the lime-tree family (Tili-acew). The two varieties mentioned are annual plants, with round stems as big as a man's finger, and with hardly any branches except at the top. They reach to a height of from 5 it. to 10 it., and are readily distinguished by their seed pods; the capsule of C. olitorius is a slender cylinder some 2 in. long, whilst that of C. capsularis is almost globular and rough to touch.

Cultivation .--J. grows best in a hot, moist atmosphere where there is Cleonsiderable rainfall. It flourishes in Bengal, especially in the Highland the state of districts, and attempts to it into Egypt and other

months after the sowing. The stalks, which are either cut down with the sickle or pulled up by hand, are gathered into bundles and immersed stagnant pools or streams to undergo the process known as 'retting." This may last from three to thirty days, the object being to loosen the fibres and separate them from the stem. One means adopted to facilitate this end is for the operator to stand in the pool and, by beating and shaking, to strip away the resinous matter of the bark. After he has agitated the fibre in the water so as to cleanse it from vegetable im-purities, he wrings it out and sus-pends it on a line to dry in the sun The fibre is now made up into bundles, and after being carefully sorted according to quality, is passed through a powerful hydraulic press, which reduces it to the familiar bales of commerce. Each bale weighs 400 lbs., and an average crop yields 2.6 bales per acre. A 100 per cent. crop, however, is one which yields 3 bales (1200 lbs.) per acre. The total number of bales produced in 1907 was estimated at almost 10,000,000. Of these nearly a half are supplied to Indian mills and used for home consumption, whilst five-sixths of the remainder is exported to Europe and one-sixth to America. About one-third of what goes to Europe is shipped to the British Isles, Dundee shipped to British lists. Builder being the centre of the J. industry. In 1910 the value of the raw and manufactured J. exported was given as £21,656,297, slightly less than half of this being the raw article; the bales of J. imported into the British Isles were valued at £4,658,450. 1906 there were 3,181,600 acres under cultivation; the production in hundredweights was 29,945,000, and the amount exported 14,581,307; if the latter figure is subtracted from the total production, the number of hundredweights consumed at home is obtained. These statistics, of course, express the same facts as the 'bale figures quoted above. The industry in Dundee has multiplied over 1000 times since its beginning at Chapelshade works in 1832. Nearly 1906 as

a nail century before. J. o first established in Caltho yield only of an inferior variety, rule from the middle of March to the indidle of June. Sometimes, however, light of the number of looms and it is first planted in nurseries and transferred outside in the seedling doubled. a half century before.

Uses and characteristics of jute. | dened in the course of baling by The Hindus have from vetimes made cordage, pap cloth out of this fibre. cloth made to-day is 'gunn; which is woven of different according to the purpose for is intended. Thus gunny used for carrying poppy seed, pulses, many times its own length, completes and rice, and package covers, sails, sheets, and even wearing apparel are also made of this material. Other articles made of J. are string, cord, floor-cloths, painters rope; brushes; net-bags to carry hay or to the of chaff for muzzie catt tying bales tarpaulin, sac arc some of the out from the from J. als · hilst Wilton, Brusse all kinds o and | The waste prod.... these manufactures can be used up in paper mills. The best J. is inferior in durability and strength to hemp and flax, and even single strands are rarely of The the same tenacity throughout. finest qualities, such as Serajgunge and Naraigunge, are lustrous, soft, and smooth, long, uniform in fibre, and of a yellowish-white colour. Inferior qualities, as, for instance, Daisee and Dowrah, are of a brown the Cattegat and from Norway by the ish hue, and are fit only to be d; darker shades. Good fibres may dyed delicate and also bright the but they rarely bleach a pure wh Balers have an elaborate system

according to tone and quality.

Manufacture.—In the early decades of last century manufacturers were confronted with many difficulties, arising either out of the use of unsuitable machinery or out of the failure to realise that J. is far more woody and brittle than other fibres. These difficulties, however, have now been overcome, so that J. is not only employed to make the commo-dities detailed above, but is also freely mixed with other animal and vegetable fibres to make horse cloth, tapestries, paddings, household cloths, etc. In a modern factory the first process is 'batching,' by which the J. is classified according to the quality adapted to the yarn desired. In one batch there are from six to twelve bales. The 'streaks' or

fibre and of subdividing these again

tweive dates. The second through a Dalmatian head in Egypt, a bale opener or J. crusher, a machine for crushing and partially perhaps as an exite, and that he lived separating the layers from the dif- on to the reign of Antoninus Pius ferent bales. In the machine the streaks are

wetted between fluted .

water and oil, as they have been har- lesson from lates, and

The J. is next ~ressure. 1 ' dollops ' (measures by · the 'breaker card' and d.' in which it is combed out. The 'drawing-'roving-frames,' \mathbf{p} in sliver is drawn out to

the process of preparation. A length of 14,400 yards of J. yarn is called a 'spyndle,' which in fine qualities weighs only 24 lbs. But a 'spyndle' of coarse yarn may weigh as much as 10 lbs. J. spinning is very similar to flax spinning.

Jute Bags, see GUNNY BAGS. Jüterbog, a tn. in Prussia, prov. of Brandenburg, 39 m. S.S.W. of Ber-lin. In 1644 the Swedes here defeated the Imperialists. Near by is

Demovitz, where Bulow defeated the French (1813). Pop. 763. Juticalpa, a tn. in Honduras, cap. of Juticalpa dept., 100 m. E.N.E. of Tegneigalpa. The town deals in agri-cultural

by are go Jutlan northern and nenin• sula, wh to the Skaw hc a line drawn fi outh of the Elbe. Separated from Sweden by if is almost cut in two by

10 m. long). The strait, that is, beid Fünen, connects . rth Seas. Irrigation, marking the four main classes of the tree plantations, and cultivation of

tree plantations, and chilivation of the fens, etc., are fast transforming the heath and sand of the interior into arable land. J. has an area of 9898 sq. m., and a population of 1,198,457 (1911). The chief ports are arrhus (61,755), Asibory (33,449), Asibory (33,449), Asibory (33,449), Asibory (34,449), Asibory (34, is Juvenalis an satirist. was the son of a well-to-up freedman of Aquinum. His personal history is

almost a blank, but the following are likely conjectures. After receiving a liberal education he devoted sometime to the study of eloquence. Late in life he developed his genius for satire and incurred the displeasure of the Emperor Domitian by his contemptuous reference in the seventh satire to Paris, the pantomime dancer and court minion. There are used and court minion.

peror's death. It is a brutal, often disgustingly vivid picture that the poet draws of the vicious Roman society of his day. The third satire, which is an Hogarthian painting of the metropolis, appals the reader with the glare and variety of its colours, whilst the sixth, which may well be called the 'Legend of Bad Women,' displays to the full the grimness of the writer's humour, the remorselessness the sincerit against the so that

itement. Facit indignatio versum,' is obvious. Like Swift, J. often descends to filth and indecency, and it must be confessed he was far too prone to verbal luxuriance and gaudy rhetoric. Yet at his best he writes with a style as vigorous and trenchant as Tacitus. and his verses are replete no less with the learning of a patient scholar than the worldly knowledge and wisdom The first of an ancient Machiavelli. nine satires are at the same time the finest and most virulent. His other reveal greater forbearance, loftier sentiment, but also a falling-off in power.

Juvenile Offenders. The policy of the modern criminal law of England is to remove J. O. as far as possible from the contaminating influence of adult criminals and the atmosphere of the police or other ordinary criminal courts. With this object the Children Act, 1908 (q.v.), provides that a J. O. (i.e. a child or young person under sixteen) must in certain cases be released on his parent's recognisances unless he can be brought forthwith before a court. In other cases of involving grave charges like homicide, or in treatise on astronomical subjects, its any case where the release of the J. O. date probably being not later than might be to defeat the ends of justice, the early centuries after Christ.

banded his scathing portrait of the the police must, pending trial, detain odious Domitian till after that em- him in a 'place of detention' unless his character is so unruly or his mental or bodily health such that it is inadvisable so to detain him. It is only in such cases as these latter that detention may be in a police cell. committed for trial must also be remanded to a place of detention and not to prison, unless of too deprayed or unruly character. No child can be sentenced to imprisonment, and a 'young person' only when of so un-ruly a character that he cannot safely be sent to a place of detention or of so depraved a character that he is unfit for mere detention. The police must keep a register of all authorised places of detention. J. O. on trial before a court of summary jurisdic-tion must be tried in a separate See also REFORMAjuvenile court, TORIES and INDUSTRIAL SCHOOLS.

Juventius, Celsus, see Cersus.
Juventius (1582-1663), Archbishop of Canterbury, was educated at Oxford. In 1609 he became vicar of St. Giles', Oxford, and about 1614 rector of Somerton. Among the other appointments that he held were those of president of St. John's College (1621), vice-chancellor (1626), Dean of Worcester, Bishop of London, and Lord High Treasurer. He was a standard address of Civical Control of the control of th Lord High Treasurer. He was a staunch adherent of Charles I., after whose death he was deposed from office. On the accession of Charles II. however, he was made Archbishop of Canterbury.

Jyotisha, or 'Astronomy,' one of the six branches of Vedic science included under the term ' Vedanga. metrical treatise ascribed to Lagadha, or Lagata, has come down to us under this title, and appears to be the oldest existing systematic 42.0

the eleventh letter c' alphabet, is a back voiceless siguttural tenuis. The Greek was originally written >, ar Phænician Kaph >. In Latir

substituted for an older k, k be substituted for an older k, k be an another thaned only in a few words, such as above prov., is a scapert with a good kalendæ. In Late Latin MSS. k was consting trade. Formerly it was noted sometimes employed to represent the for its slave market. Pop. 10,500, hard sound of c before palatal vowels. Kabir was a 14th century rec, i, y. K does not occur in O.E., but ligious reformer and was one of the in early M.E. manuscripts it is used as a variant of c. M.E. c had the hard great Vaishnava spiritual leader. The sound of k before c, i, where these were originally guttural vowels. After disciple was bhakti, or faith in and the Norman Conquest, words of devotion to a personnt god. Norman Conquest, words French origin came in use in which c French origin came in use in which c had the soft sound of s before c, i. tan, on the Kabul R., 80 m. N.N.E. For the sake of clearness the words of of Ghuzni. It is of great antiquity, native origin were written with a k; and was formerly walled. It is of .E. cynn, cyning, N.E. kin, king, memorable in modern history for the and Fr. cité, N.E. city. In O.E. c massacres of the British, and its caphad the hard guttural sound initially ture by had the hard guttural sound initially before consonants. In M.E. c was written as k before n and became silent, e.g. O.E. cnill, N.E. knight. In N.E. there are many words of Scandinavian origin with initial k, is extensive, especially in carpets, e.g. keg, kill, kirk, and many foreign words have been introduced, e.g. khoran, kangaroo.

Kaba, The, a shrine in the great mosque of Mecca, the foundation stone of which is supposed to have keen laid by Abraham. All Meslemites resort the entire of pilothers. All Meslemites resort the entire of pilothers in on the crated. Kor K Branco and significs tenses the crated. Kor K Branco and significs tenses the crated. Kor K Branco and significant the crated.

Transvaal, S. Africa.

the business centre.

Kabba, a prov. of N. Nigeria, a the E. coast of Alaska, from which ky the Niger, covers an area of 7800 There are several salmon canyeries, and it is fertile and well culti- and trade is very brisk. St. Paul, ky vated, and good crops of tobacco, village on the N.E. coast, is an important centre for furs.

Indigo, wheat, and cotton are observed the products are rubber. tained. Other products are rubber, Kadina, a tn. of Daly co., S. Aushara Rangeru (the cap.), Lokoja (ceded copper mines in the district. Polytothe British in 1841), and Kabba, a 1700.

British military station. Pop. of Kampfer. Encelberger Rangeru (the cap.), Lokoja (ceded copper mines in the district. Polytothe British military station. Pop. of Kampfer. Encelberger Rangeru (the cap.), Lokoja (ceded copper mines in the district. Polytothe Rangeru (the cap.), Lokoja (ceded copper mines in the district. Polytothe Rangeru (the cap.), Lokoja (ceded copper mines in the district. Polytothe Rangeru (the cap.), Lokoja (ceded copper mines in the district. Polytothe Rangeru (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (ceded copper mines in the district. Polytothe (the cap.), Lokoja (the

Kabbala, see Cannala.

16-2:-2--- ^---nda: 1. A terri-W. Africa, at the R., lies between Africa and the id covers an area n. and cap. of the

of devotion to a personal god.

Kabul, a city, cap. of Afghanistan, on the Kabul R., 80 m. N.N.E. of Ghazni. It is of great antiquity, and was formerly walled. It is

Kaarien, a in. 160, m. a, on the crated, K. or K. Barnea was the Eger, 20 m. N.E. of Carlsbad, has a resting-place of the Israelites before church founded by Knights of St. entering the Holy Land, and was the church founded by Knights of St. entering the Hofy Land, and was the John. Pop. 8630.

Kaalund, Hans Vilhelm (1818-85), water, whence it derived its new name a Danish poet, born at Copenhagen. Meribah Kadesh. This place has blandede Digle, 1844; Fabler for Born with Petra, which is 55 m. distant (young people, 4th ed.), 1884; Elf from Beersheba. Mention is also Foraar (6th ed.), 1886; his lyric made of two places called K. in drama Fulvia (5th ed.), 1903; En Carlon Vi. 71-77. One was the K. Elfercaar (4th ed.), 1889. Rang, or De Kang, gold fields in the the other was 'the Kadesh in Gallice answaal, S. Africa. Barberton is out of the tribe of Napthall.'

Kaf, according to Mohamma

legend, was the name of the mountain surrounding the world, and was supposed to be inhabited by giants and fairies.

Kaffa, Theodosia, or Feodosia, a flourishing seaside resort in Russia, is situated on the S.E. coast of the Crimean peninsula, in the Bay of

Kaffa. Pop. 28,000.

Kaffa, a tributary state in the Galla country, forming part of Abyssinia. It consists of a large plateau, and is partly drained by the R. Omo. It is regarded as the native home of the coffee plant, which grows there

abundantly.

Kaffirs. The K. and cognate tribes are a bold warlike people spread over a considerable part of Southern Africa between Delagoa Bay and Cape of Good Hope, but more especially the eastern part of the colony. The word Kaffir itself signifies 'unbeliever,' and the name was applied to them by the Mohammedans, because they would not be converted to Islam. Ethnically the K. proper are a Bantu tribe quite distinct from the negroid type, being a race of a much higher order of intelligence; but they have, especially farther N., become much interally farther N., become muon inter-mingled with the negroes. Histori-cally, the K., before the occupation of their territories by the British administration, were by no means a race of untutored savages, of no political pretensions, but could boast innumerable distinct national dynas-tics which have given their names to ties, which have given their names to the various tribes reputed to have descended from the real or eponymous ancestry of Zuide, at or about the end of the 15th century. The K. formerly did not evince any particular fondness for either pastoral or agricultural pursuits, but have now for years been notable for their large herds of cattle. The Bechuana breed of cattle are commercially valuable, and are remarkable for horns of a tremendous span, which made them

irposes of by the K. ranskelan s bounded

on the N.W. by the Drakenberg and Stormberg Mts., on the E. by the Umzimkulu R. and Basutoland, on the N.E. by Natal, and on the S. by Cape of Good Hope; and since 1894, when Pondoland was incorporated, has been divided for administrative purposes into Griqualand East. Tembuland. Transkel, and Pondoland. Kaffraria is a term loosely applied to the whole of the regions occupied by the various K. tribes, but it is better pending it to British Kaffraria and

proper extend from about lat. 30° to 32° S. Embracing an area of some 20,000 sq. m., they comprise an extremely fertile region, lying near the coast, abundant in forests, rivers, and

mountains.

Both the English and the Dutch colonists in S. Africa have cause to know the warlike qualities of the K. In the process of colonisation the Europeans and natives have necessarily come into frequent collision. Towards the end of the 18th century, it was agreed between the K. and the colonists that the Great Fish R. should form the boundary between their respective territories; but for over forty years the K. were constantly breaking over the border and surprising the colonists. Colonel (afterwards Sir Harry) Smith gained a decisive victory after reaching Grahamstown in 1835; but the vacillating policy of the Home Government towards the K. opened the way to fresh outbreaks, and in 1852 Sir Harry Smith again brought success to the British arms, storming the Amatola Mts. with but scanty forces. Peace reigned for a quarter of a century, when the hereditary enmity between the different K. tribes themselves necessitated further repressive measures. It is only within very recent years that the extensive territory comprising the Zulus, Ban-tus, Hottentots, Gcalekas, Swazis, and Pondos can be said to have enjoyed a measure of peace of any permanent promise. In 1873 the Scottish Episcopal Church founded in Kaffraria the diocese of the Independent(Kaffraria)St.John's. Thenatives are now under no disability as regards both the franchise and the judiciary, and for the administration of purely native affairs there is a secretary, assisted by two chief native commissioners, twenty-eight native and six assistant native commissioners. Such restrictions as do exist relate exclu-sively to the supply of arms and liquor. The British South Africa Company is bound to supply the natives with lands for agriculture and industrial purposes, such lands being known as the Native Reserves.

RIOWN as the Native Reserves.

Bibliography.—G. M'Call Theal,
Hist. of South Africa, 1887-91; F.
Fleming, Kaffraria and its Inhabitants, 1853: S. W. Silver, Handbook
of South Africa; S. J. du Toit, Rhodesia Past and Present, 1897; W. H.
Brown, On the South African Frontier,

1899.

Kafiristan (Persian Kafir, infidel. stan, place), a country of Central Asia, lies between Afghanistan and Kashmir, and covers an area of 5000 sq. m. The soil is fertile and laffraria proper, though even these 5000 sq. m. The soil is fertile and itter names are fast becoming obso watered by the tributaries of the te. British Kaffraria and Kaffraria Kabul R. The valleys produce fruits, including wild grapes and pomegran- Kahnis, 1863; Winter, Dr. K. F. A. ates, and crops of barley, wheat, and Kahnis, 1896. ates, and crops of barley, wheat, and millet. The inhabitants are unlike any of the surrounding tribes, and claim descent from the Greek troops of Alexander the Great. They are independent and warlike, and preserve a fierce enmity against the Mohammedans. It is under the control of

the Amir of Afghanistan. Pop.200,000. Kaftan, Julius (b. 1848), a German Protestant theologian, an adherent of the so-called school of Ritschl, edu-

n 1881, and

at Berlin University ... 33. Among , his chief works are : Die Predigt des his chief works are: Die Tream we Erangeliums im modernen Geistes-leben, 1879; Das Wesen der Christ-lichen Religion, 1881; Die Wahrheit der Christlichen Religion, 1884; wir ein neues D . 1897 (last ed und Nictesch 1902. ed.),

Ritschl'sche Theologie ; Lientengers. Hist. of German Theol. in 19th century (translated by Hastie), 1889.

Kaga, or Kashiu, a kuni or old prov. and tn. of Japan, now included in the prefecture of Ishikawa (with cap. Kanazawa).

Kagalnik, a tn. in the gov. of Ekaterinoslav, Russia, situated at the mouth of Kagalnik R. Pop. about 5000.

Kagoshima, the cap. of Satsuma prov., on a bay in S. of Kiushiu Is., Japan, 90 m. S.S.E. of Nagasaki. It has a harbour and lighthouse, manufs, pottery in imitation of 'old Satsuma' ware, cottons, silk, glass, arms, and cigarettes. It was bombarded by the British in 1863, and headed the Satsuma rebellion in 1877. Pop. about 65,000.

Kahla, a tn. of Saxe-Altenburg duchy, Roda dist., Germany. The castle of Leuchtenburg is on a mountain near by, and porcelain is manu-factured. Pop. 6396. Kahnis, Karl Friedrich August (1814-

88), a German theologian, professor at Breslau in 1844, and at Leipzig in He became canon of Meissen in 1860, retiring in 1886. At first a neo-Lutheran, he joined the old Lutheran party later, displaying a liberal spirit which brought him into conflict with Dickhoff, Hengstenberg, and others. His works include: Die Lehre vom Abendmahl, 1851; Der innere Gang des deutschen Protestantismus . . ., 1854 (Eng. trans. 1856); Geschichte der deutschen Reformation. 1., 1872: Die Lutherische Dogmatik Kaisarieh (ancient Casarea), a t.). . . . 1861-68 (2nd ed. 1874-75): Der in the vilayet of Angora, Turkey in Gang der Kirche in Lebensbildern, Asia, situated 160 m. S.E. of Angora 1881. See Delitzsch, Für und wieder Pop. (estimated) 72,000. See Casani, A

Kaieteur (or Kaiteeur) Falls, a cataract of Potaro R., a trib. of Essequibo R. in British Guiana. The river falls nearly 800 ft.

Kai-leng-fu, Kaifung, or Khaifong (formerly Pien-liang), the cap. of Honan prov., Central China, 10 m. from Yellow R. It was the capital of the Sung dynasty (960-1405) as 'Tungling', It has proceeded to the Sung dynasty (960-1405) as 'Tungling', It has proceeded to the Sung dynasty (960-1405) as 'Tungling', It has proceeded to the sung dynasty of the sung dynasty king.' It has possessed a Jewish colony since 1183 (see Journ. R.G.S., 1858). Chuchenchen, near by, is one of the chief Chinese marts. Pop. about 200,000.

Kailas, a spur of the Himalayas, W. Tibet (22,000 ft. high), the sacred 'Paradise' or 'Olympus' of the Hindus. It is between the N. chain of the Himalayas and the Gangri Mts., N.W. of Lake Manasarowar. The Sutlej, adus, Sutlej, a vers rise from it. and Brahmaputra

Kain: 1. A prov. in E. Persia, on he borders of Afghanistan, is an gricultural dist. The chief products gricultural dist. The chief products are carpets, skins, almonds, spices, silk, and opium. The capital is Birjand, pop. 27,000. Pop. of prov. 220,000. 2. Atn. in above prov., 60 m. N. of Birjand, was formerly important as a fortified stronghold. Pop. 6000.

Kainite, a hard crystalline mineral consisting of sulphates of magnesium; potassium, and magnesium and chloride. It is found in great quantity in the salt mines of Stassfurt and other places in Germany. It is used as a fertiliser and as a source of potassium and magnesium compounds.

Kaipara Harbour is situated on the W. coast of North Is., New Zealand, and is about 5 m. wide. The surrounding forests produce Kauri pine.

Kaiping, a tn. in the prov. of Pechili, China, situated about 73 m. N.E. of Tientsin. It stands in the centre of a coal-producing district.

centre of a coal-producing district.
Kaira, or Kheda, a tn. 20 m. S.W.
of Ahmadabad, in Bombay, British
India. It is at least as old as the 5th
century A.D. Pop. 10,392. Ricc,
cotton, and millet grow in plenty in the fertile district of K., which is the lettile district of K., which is watered by the Mahi in the S., and the Sabarmati in the W. Pop. 720,000.

Kairwan, a city of Tunis, 30 m.

the chief articles of come carpets, morocco-leather goods, and copper wares. Pop. 20,000.

Kaiserslautern, a tn. of the Pala-inate, Bavaria. It is an important tinate, Bavaria. centre. manufacturing the chief articles produced being cotton yarn, sewing machines, boilers, and shoes. The town also possesses railway shops and iron works. Its castle, which was built during the 12th century by Frederick Barbarossa, was destroyed

during the 18th century. Pop. 54,665. Kaiser Wilhelm Canal, in Schleswig-Holstein, extends from the Elbe above Brunsbüttel to the Baltic at Holtenau above Kiel. It is 61 m. long, and 29 ft. deep. The construction was first begun in 1887, and the canal was first opened for traffic in June 1895. At present it is only suitable for small vessels, but it is being enlarged, so as to accommodate the largest battle-

ships.

Kaiser Wilhelm's Land, a German protectorate in the N. of New Guinea, together with Long, Dampier, and a few small islands, covers an area of 70,000 sq. m. It is mountainous, the principal heights being the Bismarck The Kaiserin-Augusta and Ramu Rivers flow through it. It is well wooded, bamboo, ebony and palms grow there. Cotton, tobacco, coffee, and sago are the chief crops. The capital is Herbertshöhe. 110,000.

Kaisong, or Song-do, a tn. in Korea, situated 35 m. N.W. of Seoul. This tn. was the cap. of Korea from 910 to

1392, Pop. about 60,000.

Kaithal, or Kythal, a tn. 46 m. S.W. of Ambala, in the Karnal dist. of the Punjab, British India. Cattle, corn, and blankets are the chief articles of commerce, but saltpetre and cotton are also manufactured. several 13th There are century Pop. 16,000. Mussulman tombs.

Kalahari, a tract of country in S. Africa, between the Zambesi and Orange Rivers, is often called K. Desert, although true desert conditions do not prevail, for many parts are at times covered with grass and scrub, which provides cover for game. It consists of sandy plateaux, containing 'salt pans,' probably remnants of inland lakes now dried up. There is a very slight rainfall, and all the rivers are periodic, excepting the Okayango, flowing into Lake Ngami. The inhabitants, called Bakalahari, live chiefly by hunting, and number 50,000.

Kalamata, or Kalamæ, the cap. of the nomarchy of Messenia, in Greece, nas been on more than one occasion he scene of political disturbances. It was sacked by Ibrahim Pasha in 1825. The district is very fertile. 1825. The Pop. 20,000.

Ralamazoo, a city in the co. of Talamazoo, Michigan, U.S.A., 144 m.

W. of Detroit. Besides possessing many schools and colleges, it owns the state insane asylum. Pop. (1910) 39,437.

Kalanao, the famous leper settlement founded by Father Damien on Molokai in the Hawaiian Is. It lies at the foot of almost inaccessible mountains and contains many schools and churches.

Kalantan: 1. A former state of Siam, in the Malay Peninsula, S. of the Patani States, now a protectorate of the British government. It has an area of 7000 sq. m., a great part of which is covered with jungle. The chief products are tin, gold, lead, and pepper. Pop. 300,000. Cap., Kota Bharu, 140 m. N.E. of Penang. Pop. 10,000. 2. A tn. in the above state, has considerable trade in the native products. Pop. 20,000.

Kalatch, a river port on the Don. Russia. The railway connecting . Russia. the Don with Tsaritsyn on the Volga has its terminus here, and the goods. principally fish, cereals, petrol, and timber, brought from the Caspian Sea up the Volga, are unloaded at Tsarit-syn and sent to K. for export. The permanent pop. is about 1200, but it

increases in the summer.

Kalbe, a tn. on the Saale, Prussian Saxony, 15 m. S.S.E. of Magdeburg. Textile industries, sugar. Pop. 12,000. Kale, see BORECOLE.

Kaleidoscope (Gk. καλός, beautiful, είδος, form, σκοπείν, to see), an optical instrument invented by Sir David Brewster in 1817. It consists of a tube about a foot long, along the whole length of which extends two whole length of which excends two mirrors or reflecting glass plates placed at an angle of 60°. One end of the tube is closed with a metal plate having a small hole or eye-glass, whilst the other end is closed with two glasses separated by a number of configuration of the state of small fragments of coloured glass. On turning the tube round its axis various gay patterns appear successively before the vision. See Brewster, Treatise (2nd ed. 1858).

Kale - i - Sultanieh, Tchanakor Kalesia, a fortified scaport of Asia Minor, on the Dardanelles, 20 m. S.W. of Gallipoli. It is noted for the manuf. of pottery. Pop. 10,000. Kalendar, sec CALENDAR.

Kalends, see CALENDS.

Kalevala, or Kalewala, a national epic of the primeval Finnish race, which was probably composed at different times by various bards. The scattered songs were first collected into a written form by Dr. Topelius in 1822, which edition was followed by the completer and more systematic one of Dr. Lönnrot in 1835. The poem relates the story of Wäinämöinen, Ilmarinen and Lemminkäinen, the

entirely with the ancient mythology and folklore of the early See English translation by Finns.

J. M. Crawford, 1888.

Kalf, Wilhem (c. 1630-93), a noted Dutch painter, pupil of Hendrik Pot. He produced mostly still-life pictures, and became famous as a painter of pots, vases, and utensils. His painting on silver and glass was especially successful. See examples at Amsterdam, Louvre, Dresden, Copenhagen, and St. Petersburg.

Kalgan, a tn. in the prov. of Chi-li, China. It is situated near the Great Wall and lies about 120 m. N.W. of It occupies an important position commercially, as it lies on the route from Peking to Siberia, and is the centre of the tea trade between the two. Pop. (estimated) 70,000.

Kalgoorlie, a tn. and dist., E. Coolgardie goldfields, W. Australia, 340 m. E.N.E. of Perth. Pop. (tn.) 18,000, (dist.) 30,000.
Kali (black), of Hindu mythology, the goddess of death and destruction,

and the wife of Seva. She is represented as black, with four arms and blood-stained face, breast, and palms.

Kälidāsa, a celebrated dramatist and poet of India. Native tradition places him in the 1st century B.C., but it is more probable that he lived in the 3rd century A.D. He wrote three plays: Sākundala (The Lost Ring, trans. by Sir William Jones, 1789), Vikramorvasi, and Mālavikāgnimitra, while the two epics Raghu-vamsa and Kumārasambhava have also been ascribed to him, as well as some lyrical pieces. It is probable that there were really three poets. See Macdonell's History of Sanskrit Literature, 1900.

Kalif, see Calif.

Kalimno, or Kalymnos (ancient Calumna), an island of the S.W. coast of Asia Minor, 15 m. N.W. of Cos. Kalimno, the cap., is the chief centre of the sponge industry in the Levant, and is celebrated for its honey. Pop.

and is celebrated for its honey. Pop. 9000. Area 42 sq. m.
Kalinga, one of the nine ancient kingdoms of S. India, extending, according to tradition, along the E. coast of Madras from 13½ to 18½ N. Kalingapatan, a scaport to of Madras, British India, at the mouth of the Vangsedhara, is 95 m. S.W. of Ganjam. It is the only safe harbour in the district during the monsoons. Pop. 5000. Pop. 5000.

Kalinjar, an isolated hill fortress and shrine in India, on a spur of the Vindhya Mts. overlooking the plains in Zungaria. Koko-nor, and parts of Bundelkhand in the United Pro-Northern Tibet, along the Steppevinces. K. is of is mentioned in

all sides of the

three sons of Kalewa (Finland), and statues and temples, the latter including the celebrated Nil Kantha Mahadeo.

Kalisz: 1. A western prov. of Russian Poland, bounded on the W. by Prussia, and covers an area of 4377 sq. m. It is divided into eight districts. The surface is flat and the soil fertile. The Prosna and the Warta are the chief rivers. The inshitents are the chief rivers. habitants are almost entirely occupied cotton, sugar, and paper—being carried on. Pop. 1,126,700. 2. A tn., cap. of above prov., on the Prosna, is 130 m. W.S.W. of Warsar, It is the apolart Calcie of Ptalamer It is the ancient Calisia of Ptolemy, and contains remains of great anti-In 1706 the Swedes were dequity. In 1706 the Swedes were ac-feated here by Augustus of Poland, and in 1813 the treaty of alliance was signed between Prussia and Russia. The chief industries are distilling, weaving, tanning, and tobacco. Pop.

Kalitvenskaya, a Cossack tn. of Russia in the prov. of Don; there are stone quarries in the neighbourhood. Pop. 23,000.

Kalk, a former tn. in the Rhine prov., Prussia, on the Rhine, now incorporated in Cologne. It is an important manufacturing centre, and has foundries, chemical works, rolling mills, and porcelain factories.

Mills, and porcelain factories.
Kalkandele, a tn. in what was once
European Turkey, vilayet of Kossovo,
25 m. W. of Usküb. Pop. 15,000.
Kalkbrenner, Christian (1755-1806),
a German-Jewish musician, father of
Friedrich K. (q.v.), famous principally for his work at the court of
Berlin, and later with the Opera,
Paris, where he was chorus-master
(1799). He also published an un-(1799). He also published an unsuccessful history of music (1792).

successful history of music (1792).

Kalmar, a fortified seaport tu. of
Sweden, 47 m. N.E. of Karlskrona, is
the capital of Kalmar prov. It is
built mostly of wood on the island of
Quarnholm in Kalmar Sound, and
connected with the mainland by a
bridge of boats. The chief manufactures are wetches and paper. It factures are matches and paper. It has a good harbour and does a connas a good narbour and does a considerable coasting trade. There is a fine 17th century cathedral and a castle dating from the 12th century. In 1397, by the Kalmar Union, the crowns of Denmark, Norway, and Sweden were united under the sovereignty of Queen Margaret. Pop. 15 000 15,000.

Kalmucks, Kalmuks, or Calmucks, a division of the Mongol race, living in parts of Asia and Russia, chiefly strakhan. They are a nomadic

dwelling chiefly in tents. In 1771

a large body of these people left Russia owing to their discontent at the Russian rule, journeyed to China, and settled there. At the present time they are divided, some being and settled there. under the rule of Russia and others forming part of the Chinese empire.

Kalna, or Culna, a tn. in the dist. of Burdwan, Bengal, British India, situated on the R. Bhagirathi, about 42 m. N.W. of Calcutta. Pop. 8000.

Kalnoky, Gustav Siegmund, Count Austro-Hungarian (1832-98).an Moravia, of a noble Transylvanian family. He was secretary of embassy in London (1860-70), and subsequently became ambassador at St. Petersburg (1880), and Minister of Foreign Affairs for Austria-Hungary (1881-95). He improved the relations between his own country and a commercial

Servia it Prödlitz in

Moravia.

Kalocsa, a tn. and Roman Catholic archiepiscopal see, Hungary, on the l. b. of the Danube, 86 m. S. of Budapest. Here is a beautiful old cathedral, an archiepiscopal palace, and an observatory. Trade in wine, fruit,

diax, and cereals. Pop. 12,000.

Kalomo, a tn. of N.W. Rhodesia,
Africa, 90 m. N.E. of the Victoria
Falls. It was once the centre of administration now transferred

Livingstone. Pop. 5000.

Kalpa-sūtra, or Kalpa-sõütra, name of certain Sanskrit writings dealing with the ceremonial connected with a Vedic sacrifice. It is also the name of the most sacred book in Jaina literature. See Jacobi, Kalp 1879; and

of the Jains Kalpi, or !

United Prc of Jumna,

of Jumna,
Chief trade, cotton. Pop. 10,000.
Kaluga: 1. A gov. of Central
Russia, is bounded by the governments of Moscow on the N., Tula on the E., Orel on the S., and Smolensk on the W. The surface is an elevated plain and the soil is unfertile and incapable of producing crops sufficient for the inhabitants. The chief river is the Oka. K. is divided into eleven districts. Pop. 1,387,100. 2. A tn., cap. of above gov., on the Oka, is 95 m. S.W. of Moscow. It manufs. leather, tallow, glass, mats, and paper, and has iron foundries, cotton mills, and tanneries. Pop. 53,854. Kalusz, a tn. of Austrian Galicia, 28 m. S.E. of Stryj. There are salt mines. Pop. 8660.

rises in the government of Vyatka and flows W. through Ufa and Kazan, joining the Volga 40 m. below the city of Kazan. It is navigable for 930 m., and is an important line of communication between Siberia and

communication between Siberia and St. Petersburg. Its length is 1172 m. Kāma, or Kāmadeva, of Hindu mythology, the god of love, the son of Brahmā or Dharmā, and the husband of Rati (voluptuousness). He was destroyed by Siva, whom he attempted to seduce, but was afterwards, re-horn as the child Presented to seduce the seduce of the seduce. wards re-born as the child Pra-

dyumna (Cupid).

Kamchatka, a peninsula in the N.E. of Asia, between Behring Sea and the Sea of Okhotsk, forms part of the prov. of Siberia. Its area is 104,260 sq. in. Cape Lopatka forms the S. extremity. Two parallel ridges of mountains occupy a great portion of the interior, running S.W. to N.E. From N. to S. is a range of volcanic mountains, most of them extinct. The highest peak is Kliutchevskaya. 15,750 ft., its latest cruption occurred in 1854. On the S.E. are the bays of Kamchatka, Kronotski, and Petropaulovsk. The chief river is the Kamchatka, 300 m. long. Fishing and hunting are the chief occupations are the chief occupations. salmon and other food fish are plentiful, and bear, fox, sable, seals, and squirrels supply furs which are largely exported. Copper, iron, mica, and sulphur are found, and in the milder climate of the interior rye, barley, and

The princips a seaport on

is very severe, and the scanty popula-

tion numbers only 8400.

Kamenetz-Podolsk, a tn. in Russia, of Podolia, is on the of the Dniester, 240 ssa. It is an ancient a Roman Catholic

of the 16th century and a of the 16th century.

It was annexed to Russia in 1795.
Pop., of which a great proportion are Jews, 36,000.

Kamenda.

Kamenskaya, a ter. in Russia, 65 m. N. of Novo-Cherkask on the River N.

Donets, in the prov. of Don Cossacks. Pop. about 24,000. Kamenz, a tn. in the kingdom of Saxony, Germany, on the Schwarze Elster, 30 m. N.E. of Dresden. It is the birthplace of Lessing, the German dramatist. The chief manufs. are glass, 1 11,553. pottery, and tobacco.

paper, and has iron foundries, cotton mills, and tanneries. Pop. 53,854.

Kamerun, see Cameroon.

Kames, Henry Home, Lord (1696-1782), a Scottish lawyer and philosopher, born in Berwickshire. He was raised to the bench in 1752, and in 1763 was made one of the lords longest tributary of the Volga. It of justiciary. Lord K. was greatly

ring, and

metaphysics and philosophy and

a voluminous writer. Consult Life by A. F. Tytler, Lord Wo houselee (2 vols.), 1807.

Kaministiquia River, rises in Ontario, S.W. of Lake Nipigon, and flows into Thunder Bay, Lake Superior, passing over the Kakabeka Falls (130 ft. high).

Kampen, an old fortified seaport tn., on the Yssel, in the prov. of Overyssel, Holland, is 9 m. N.N.W. of Zwolle. It was one of the Hanse-atic towns, and had a thriving trade which declined owing to the silting up of the harbour. Jetties have been constructed and it is again flourishing. chief manufs, are blankets, machinery, cigars, and bricks.

Hadding of Camperdown, a vil.

on the coast of Holland, in the prov.

of N. Holland, 27 m. N.W. of Amsterdam. Off K. Admiral Duncan defeated the Dutch fleet under De

Winter (1797).

Kämpfer, Engelbert (1651-1716), a German traveller, born at Lemgo in Lippe. He travelled through India. Ceylon, Java, Siam, and Japan from 1683-94, and as a result of his travels wrote a History of Japan and Siam, which appeared posthumously in He was also the author of 1727.Amanitates Exotica, 1712.

Kampti, see Kamphi.

Kamrup, a dist. of Assam, British India, in the Brahmaputra Valley, has an area of 3660 sq. m. The cap. is Gauhati. The chief products are rice, mustard, and tea; the manufs. are silk, brass ware, and filigree work. Pop. 590,000.

Kamtchatka, cee Wastoware

Kamthi, or !! . tn., Nagpur di S m. N.E. of

and timber are exported. Pop. 40,000.

fortress, and Tokyo Bay, tre f Yokohama. Ja.

Pop. about 12,000.

Kanakas, a term used by the Polynesians to describe themselves. Kanaka, or Tanaka, signifying ' man. The word is used indiscriminately by white races to describe all South Sea sime races to describe all South Sea Islanders. The islanders were formerly forced into labour and exported to the Queensland sugar plantations of Australia. The traffic was prohibited in 1906.

Kananur, or Kananore, a scaport and military station on the W. coast of India, Malabar dist., Madras, 53 m. N.N.W. of Calicut. Exports timber, grain, and cocoanuts. Pop. 28,000.

Kanara: I. North, a dist. in the S. of the shore of an artificial lake. The Bombay Presidency, India, has for its Buddhist temple, Dalada Malagawa,

interested in agricultural enterprise, W. boundary the Arabian Sea. It con-and, besides possessing an extra-tains extensive forests, yielding teak ordinary knowledge of law, studied and bamboos and abounding intigers, chief in-

> town is Karwar. Area 3910 sq. m. Pop. 455,000. 2. South, a dist. on the Malaaugust of Madras, India, has an area of 4000 sq. m. It exports coffee, copra. rice, spices, and wood. The chief town is Mangalore. Pop. 1,135,000.

> Kanaris (or Canaris), Constantine (1790-1877), a Greek patriot, born in the island of Psara. In the cause of Greek independence he blew up Captain Pasha's flagship with 2000 Turks (1822), repeated his feat at Tenedos in the same year, and wrought further damage to the Turkish fleet in 1824-He became Minister of Marine (1854-55) and, after the revolution of 1862, became premier to the new king.

Kanauj, an ancient city in Farrukha-bad dist., British India, 50 m. N.N.W. of Cawnpore, is on the Kali Nadi R., trib. of the Ganges. It was formerly one of the most important cities of India, and is surrounded by ruins of its decayed greatness. It manufs. otto of roses, paper, and cotton goods. Pop. 18,500.

Kanawha, Great River, see GREAT

KANAWHA.

Kanazawa, a tn., cap. of the prov. of Kaga, on the W. coast of Japan. It manufs. the celebrated Kaga porcelain, bronze, and silver wares, and silk. It has a castle, fine public gar-dens, and a technical museum. Pop. 110.994.

Kandahar, or Candahar, the cap. of the prov. of Kandahar, in S.E. Afghanistan. It is situated about 280 m. S.W. of Kabul, and at a height of about 3500 ft. above sea-level. city itself, which is well watered, is a place of great !-

centre ; amongs being silk, felt,

to tradition it was founded by Alexander the Great, and for about thirteen centuries practically nothing is known of its history. In 1839 it was occupied by the British, and in 1842 General Nott successfully defended it. ĭτ in took pos-30, when bese

sicged by Ayub Khan, was relieved by Earl Roberts. Pop. variously estimated from 25,000 to 50,000.
Kandavu, or Kandabu, Island, one of the Fiji Group. Mountainous; length 35 m.; breadth 4 m.

Kandy, a tn. in Ceylon, 58 m. N.N.E. of Colombo, was formerly the capital of the island. It is splendidly situated, 2000 ft. above sea-level, on

its ancient manuscripts. Near by are the botanical gardens of Peradenia. It was finally occupied by the British iu 1815. Pop. 26,522.

Kane, a tn. and summer resort in M'Kean co., Pennsylvania, 75 m. E.S.E. of Erie, U.S.A. There are railway works, lumber mills, and glass works. It is an oil and gas district. Pop. (1910) 6626.

Kane, Elisha Kent (1820-57), an American explorer, born at Phila-delphia. He took his medical degree in Pennsylvania University and became a surgeon in the navy, and visited India, China, Africa, and Mexico. Twice he went on Arctic expeditions to discover traces of Franklin, and received a gold medal from the He died are The tion and

tion in S Kane, Sir Robert (1809-90), a chemist, born in Dublin. He was educated there and became a professor of chemistry in 1831. He held various other professorships and received a gold medal from the Royal Society, London, for research into the colour-ing matter of lichens. In 1846 he was high theted, in 1849 he was made president of Queen's College, Cork, and in 1877 he became president of the Royal Irish Academy. His chief works were Elements of Chemistry and Industrial Resources of Ireland.

Kanem, a former state in Central Africa, on the N. and E. of Lake Chad, but is now part of French Equatorial Africa. Its area is 28,000 sq. in. It was founded in the 9th century and came under French control in 1903. The chief towns are Mao on the E., and Mgigmi on the N.W. of Lake Chad. Pop. 100,000.

Kangaroo, or Macropus, a genus of marsupial quadrupeds almost entirely confined to Australia and the neighhouring islands, though a few species are found in New Guinea. They form one of the most prominent and characteristic features of the fauna of these lands. Ks. vary considerably in size; the great K. attains a length of 8 ft. including the tail, whereas the wallables (brush-knngaroos) and ratkangaroos, both of the same genus, are comparatively small. They are distinguished primarily by the poswhich they carry their young at birth and to which the latter go for shelter, after they are able to run and jump. They possess six teeth in the upper jaw and two in the lower, the upper jaw and two in the lower, the Kanizsa, Nagy, or Great Kanizsa, a canines being absent or rudimentary. In in the co. of Zala, 135 m. S.W. of The head is small compared with the Budapest, Hungary, is a free royal

is visited by pilgrims for the supposed | rest of the body, and tapers forward. tooth of Buddha it contains, and also | The shoulders and fore limbs are its ancient manuscripts. Near by are | feebly developed, but the hind limbs are greatly elongated, and by means of these and the powerful tail the K. is able to take long leaps and make swift progress. The fore feet have five toes, each furnished with a strong, hooked claw. The hinder feet are extremely long and narrow, and possess only four toes, the centre one, corre-sponding to the fourth of the human foot, being greatly developed, and terminating in an elongated nail, resembling a hoof. Ks. are formidable consumers of pasture, and browse on grass and various kinds of herbage, and are hunted by colonists as much on account of the damage they do in cating grass required for cattle and sheep, as for sport. They are by sheep, as for sport. They are by nature timid and inoffensive, except mature timid and inollensive, except when brought to bay, when they will defend themselves with their sharp claws and powerful hind legs. The fur is soft and woolly and lighter in tint below than above; the skin being of value for both shoe and glove leather. The flesh is said to be nutritious and savoury recombling tritious and savoury, resembling mutton, the tail especially being con-sidered a delicacy. In the Zoological Gardens of London the Ks. and wallables breed freely. See Ingersoll,

Life of Animals: Mammals, 1906.
Kangaroo Island, in St. Vincent
Gulf, S. Australia, is cut off from
Yorke's Peninsula by Investigator
Strait. It was discovered by Captain

Flinders in 1802. Its area is 1700 sq. m. Pop. 600.

Kangaroo Valley, a post tn. of New South Wales, in Camden and St. Vincent co., nearly 100 m. S. of Sydney. Pop. 2000.

Kangavar, or Kengavar, a small dist. of Persia between Hamadan and Kermanshah, forming a separate government, being held in flef by the family of a deceased court official. The district is fertile and contains

The district is fertile and contains thirty villages, of which the largest, Kangravar, has 2500 inhabitants.

Kangravar, has 2500 inhabitants.

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Kangravar, has 2500 inhabitants.

Kangravar, or Nagarkot, a tm. and former cap. of a dist. of the same name in the Jullundur division of the Punjab, British India, 90 m.

E.N.E. of Amritsar. The famous temple of Devi Bajreshri was detroved by the carthylagh of April 1 stroyed by the carthquake of April 4. 1905. Pop. (1901) 4746. The dist. of Kangra lies between the Juliundur dist. and the southern Himalayas. Dharmsala is the chief town of the district. There are wide tea plantations, and oplum, rice, spices, and tea are grown. Area 9978 sq. m. Pop. 768,124.

com-

town.

town. The cener manuactures are spirits and tiles. Pop. 23,000.

Kanizsa O, or Old Kanizsa, a tn. on the Theiss, in the co. of Bacs-Bodrog, Hungary, is 14 m.S.W. of Szegedin. It has considerable trade in agricultural

produce. Pop. 16,500.

Kankakee, a city in Illinois, cap. of Kankakee co, on the Kankakee R., U.S.A., is 52 m. S.W. of Chicago. It has limestone quarries and papermills, and manufactures bricks, machinery, and cigars. It contains the Illinois State Hospital for the Insane, and many fine public buildings. Pop. (1910) 13,986.

Kankan, a tn. of French Guinea, W. Africa, situated on the Milo, 158 m. S.S.W. of Bammaku. It is a

trading centre.

Kano, a prov. and tn. of Northern Nigeria. The former has an area of 31,000 sq. m., and includes Katagum 0,000.

The industries are cloth-dyeing and weaving, and the manufacture of leather

goods. Pop. 50,000.

Kanobin, a Turkish vil. of Syria, situated 12 m. S.S.E. of Tripoli; there is a Mayonite monastery here.

Kansas, a N. central state of U.S.A., bounded on the N. by Nebraska, E. by Missouri, S. by Oklahoma, and W. by Colorado, covers an area of 82,158 sq. m. There are no mountains, and only one navigable river, the Missouri. The surface is undulating prairie covered with rich loam of the highest agricultural value. The eastern part of the state is covered by carbonifer-ous formations, the W. by Pliocene deposits, and the remainder by Cretaceous and Tertiary deposits. Bituminous coal, lead, zinc, gypsum, and salt are found, and petroleum wells furnish a valuable supply of oil. The chief crops are wheat, Indian corn, oats, potatoes, sorghum, flax, and tobacco. The state is not and tobacco. The state is not naturally well wooded, the trees are usually small and found in river bottoms; red cedar is the only native evergreen. The luxuriant growth of wild sunflowers has given K. the nature of the Englance State. Aggiculture of the Sunflower State. Agriculture and cattle raising employ most of the people, and manufacturing industries connected with them, as beef and pork packing, flour mills, and the manufacture of agricultural implements, are the most important. It is divided into 105 counties, the principal towns are Kansas City,

The chief manufactures are taken over. It suffered much during the Civil War. According to the Constitution of 1861, the legislature consists of a senate and a House of Representatives elected for four and two years respectively. Eight members of the latter represent the state in Congress. The governor and executive officers are chosen for two years. Pop. (1910) 1,690,949.

Kansas City: 1. A city and cap. of Jackson co., Missouri, U.S.A., on the Missouri R. It is an important railway and trading centre, and situated at the junction of several railway systems. There are smelting and refining works and flour mills. The chief industry is meat packing. The public building appropriate of the public packing are investigated. buildings are imposing, and large sums of money have been spent in grading the site, which was very uneven. Pop. (1910) 248,381. 2. The largest city of Kansas state and cap. of Wyandotte co., situated at the junction of the Kansas and Missouri Rivers. It has immense meat-packing houses, second only to Chicago, and an important grain and flour trade. Its manufactures include soap, machinery, and

railway locomotives. It is the seat of a university. Pop. (1910) 82,331. Kansk, the chief tn. of a district of Eastern Siberia, in the gov. of Yeni-seisk, on the Kan R., 151 m. E. of Krasnoyarsk. The district is puri-

Krashoyarsa. The district is admired to the river. Pop. 8750.

Kansu, a N.W. prov. of China, is bounded N. by Mongolia, S. by Szechuen, E. by Shensi, and W. by Tibet. It covers an area of 88,700 Tibet. It covers an area of 88,700 sq. m. It is mountainous, on the S.W. the great Nan-shan Mts, form the Tibetan border. The Hoang-ho is the principal river, flowing from W. to N.E. Min

especially coal. and good crops

tobacco are obtained. The climate is tonacco are obtained. The climate is very dry. Trade is carried on chiefly with the E. provinces, the products are mainly dyes, silk, tobacco, mercury, wool, and cattle. The capital is Lanchow. The main trade route from Peking to Kashgar passes through the prov. Pop. 10,385,376. Kant, Immanuel (1724-1804), one of the most important of medera

of the most important of modern philosophers, and perhaps the greatest of all metaphysicians, born of Scottish descent at Königsberg (E. Prussia), a hotbed of pietism. As far as actual incident is concerned, his life offers but few points of interest to a bio-grapher. He was soundly educated Topeka (the capital), Wichita, at the gymnasium of his pirthplace, Leavenworth, Atchison, Lawrence, and Fort Scott. The greater part of it was acquired by the Louisiana purchase, 1803, and completed in 1850, when the Mexican territory was school, which at that time held sway

npiricists

in Germany. Towards the end of the first part had appeared in the the six years he spent there, he was sorely pressed for money, on account of his father's death; and from 1746-1755 carned a scanty living as private sorely 1745 carned a scanty living a tutor. In 1755, obtaining his degree of doctor of philosophy, he became a docent, i.e. a private lecturer under the control of the university, and eleven years later he was appointed a sub-librarian, a position carrying a salory of about £11 per annum. It was not until 1770 that he succeeded to the coveted professorial chair; and in the ne he lectured not only

been idle in the literary field; his first book, Thoughts on the True Estimate of Living Forces, was published in 1747, and the Theory of the Heavens in 1755. Dreams of a Visionary, his first really significant work, appeared in 1766, probably inspired by his reading at that time of Swedenborg. This work has sometimes been regarded as the introduction to his ambitious system of critiques which came later; but perhaps it would be more correct to assign that place to his Latin treatise, Disscriptia de his Latin treatise, Dissertatia de Mundi Sensibilis (1770). It was only during his occupation of the chair of philosophy at Königsberg University (1770-97) that he was recognised at all widely as a profound and original thinker, As a lecturer he was successful, although his weak voice, deformity, and slight physique were hardly of service to him in commanding respect and attention His ultimate fame rests on the writings of the later part of this period, of which the Critique of Pure Reason (1781), his best-known work, and the basis of all his su me first. As an ie published a year or so later an explanatory popular version was issued by one of his students; the Metaphysic of Ethics (1785), and Metaphysic of Nature (1786) appeared, and the critique wassed in the critique was a critique passed into its second edition in 1787. Meanwhile, Königsberg had become the centre of philosophical activity, and K.'s method had been adopted by nearly all the German universities, not only for philosophy, but also in some instances for combination with Christian thing. The remaining Christian ethics. and Of Judgment (1790), complete object offer itself as a cognisable unit the list of his most important works. In 1792 his teaching was censored by the Prussian government on account of the nnti-Lutheran ideas in his rationalistic thesis, On Religion within the Limits of Reason alone, of which critiques, Of Practical Reason (1788) and Of Judgment (1790), complete the list of his most important works. In 1792 his teaching was censored by

ed at the

eclectic triviality and dogmatic prejudice of the existing German schools. It is customary to divide his work into three periods: (1) Influenced by Leibnitz and Wolff; (2) a reaction (1) under the influence of the

empirical philosophers; and critical period, during which his own philosophy found mature expression. It is necessary to explain, before considering the main points of his teaching, that by 'puro' he meant that which is isolated from actual experience, and by 'empirical,' that which results from actual experience. The chief divisions which he made in his own system were (a) transcendental, and (b) metaphysical; the former he developed more fully, and has had more influence on subsequent thought-he has been called the recreator of the transcendentalism of cognition. He divides the mind into (a) Intellect, subdivided into sensibility (passive), and thought (active); (b) Sensation, or Feeling, the lowest cognitive faculty; and (c) Volition. The old rationalism he rejects, for its psychology he substitutes his examination of the subject; for its cosmology, his examination of the object; and for its theology, his examination of the relation between subject and object. Identifying the conception of God with the more general law of ethical necessity, he places responsibility on the reason as opposed to the emotions. That it should be possible for a man to accept this responsibility, it is necessary that he cheek here. sary that he should be free from the control of the physical laws of natural causality. This spiritual emancipation, the elevation of subject over object, of noumenon over phe-nomenon, is attained as his critical conclusion that phenomena do not exist in themselves, but only in relation to the mind, with which they are, therefore, conformative. He denied the existence of any law of truth

ily by a process of schematisation does an

rmed.

(between substance and accident, cause and effect, action and reaction); and (4) Modality, (Possibility, Existence, Necessity). His Critique of Pure Reason is an examination of experience and of the laws of practical reason which he ultimately announced as its controlling force; practical reason becomes one with morality, and the supreme cause is a moral cause, i.e. the subordination of the empirical, or sensuous, to the pure, or intellectual. His final dicta on the of noumenon and phenomenon, i.e. experience, are to be found in his Critique of Judgment, in which he traces the ultimate value of life to ethical teleology. From his system of critical or transcendental idealism were developed the 'sub-jective' idealism of Fichte, the the 'objective' of Schelling, and the absolute of Hegel; and his works influenced Jacobi. Schleiermacher and Schopenhauer.

Bibliography.—Editions of works: German: Rosenkrantz and Schubert (Leipzig, 1838-42), Harten-stein (Leipzig, 1838-39 and 1867-69): see also Paulsen, Kant, sein Leben und Lehre, 1898 (Eng. trans. 1902). In English: Critique of Pure Reason, trans. Meiklejohn (1852), Müller (1881), and Morris (1882); Theory of Ellics, Abbot. 1873; Critique of Judg-ment, Bernard, 1892; Critical Philo-sophy, Caird, 1859; and Works by Lewes, Stirling, Mahaffy, and A. J. Philosophy

n K. in the See Baldichol.

Kanturk, a market tn. of Ireland in co. Cork, 30 m. N.W. of Cork. Pop.

1700.

Kaolin, or China Clay, is a fine almost impalpable powder of pure white colour, very soft and slightly greasy to the touch (h. 1; sp. gr. 2·2), consisting of hydrated aluminium, silicate. It absorbs moisture readily, and when wet is easily moulded, being largely used in the manufacture of porcelain (of which it is the chief ingredient) and of pottery, the absence of iron in the clay resulting in a pure white article after firing. K. is also used in the preparation of sizes for smooth-faced papers, and for loading cheap cotton goods, and is a constituent of many water colours, prov. of Azerbalian, between longia ·

follows: (1) Quantity (Unity, Multi-clay is also found in large quantities tude, Totality); (2) Quality (Reality, in Cornwall, and in Saxony, France, Negation, Limitation); (3) Relation, the United States, and elsewhere. The pure clay is prepared by stirring up the crude material with water and allowing it to settle. It is then dug out and dried over hot flues.

Kapila, the founder of the San-khya system of Hindu philosophy. described variously as the son of Brahma, or the incarnation of Vishnu. The authorship of the Sankhyasutras

has been ascribed to him.

Kaposvar, a tn. of Hungary and cap. of the prov. of Somogy, situated 30 m. N.W. of Fünfkirchen. Pop.

18,000. Kappel, see CAPPEL Kaproneza (Ger. Kopreinilz, Hun-

garian Koprienica), a tn. of Croatia-Slavonia, Hungary, 57 m. N.E. by E. of Agram. Pop. 7000. Kapunda, a tn. in Light co., S. Australia, 45 m. N.N.E. of Ade-laide. It contains the first copper mines worked in Australia, and some marble quarries. It is the centre of a great corn-growing district. 2000.

Kapurthala: 1. A state in the Punjab, India, between the Beas and Sutlej, has an area of 630 sq. m. The soil of the district is fertile; the chief crops are sugar, tobacco, cotton, and grain. Pop. 315,000. 2. A tn., cap. of above state, 65 m. E. of Lahore, contains the Raja's palace and Randhir College. Pop. 18,600.

Karachev, an old in. of Russia in the gov. of Orel, with oil works, hemp factories, and a trade in grain, etc. Pop. 16,400.

Karachi, or Kurrachee, a scaport tn. of British India, cap. of Sind, is in the Bombay Presidency. It is the chief port for the Punjab and takes most of the traffic of the Indus. The wharves of the extensive harbour are on the island of Kiamari which is connected with the town by the Napier mole, 3 m. long. Large sums of money have been spent on improving the harbour and making the docks and breakwater. railway terminus and busy trading centre, having extensive inland trade Afghanistan and Turkestan. The chief industries are carpets and metal ware. It was acquired by the British government in 1842. 151,903.

Karadagh, a dist. of Persia, situ-

K. G. *, see CZERNY, GEORGE. see AFIUM KARA

(Black Caps), people who inhabit Connactne E. coast of the Aral Sea, thus

fe

C

lam manufacture in Cinna.

forming a geographical transition between the Northern Kirghiz and Traveller (1797-1801), and estab-Southern Turcomans. Emigrants His great have settled in Astrakhan, Kuban, and Siberia. They are a handsome down to the accession of Michael culture. Pop. (estimated) 125,000. Karakol, see Prejevalsk.

Karakoram Mountains, or Mustagh, the name of a range in Central Asia, separating Eastern Turkestan and centre of an auriferous district. Pop.

some of the highest mountains in the world, among them being Godwin-Austen (28,278 ft.), and several others over 25,000 ft. high. It is also crossed by several passes, such as the Karakoram, over 18,000 ft. high, and the Mustagh. Extending to the W. there are numerous glaciers and icefields, one of the largest being the Baltoro.

Karakaram the rame of two old I. The Uighur

remain on the remain on the Selenga R., in the Talai-Khain-dala Steppe. It flourished between the 7th and 9th centuries, and was deserted on the fall of the Uighur kingdom. 2. The Mongolian cap., about 25 m. S.E. of the above. It was founded by Jeneir Khan and its founded by Jenghiz Khan, and its walls were built in 1234-35. The city was visited by Marco Polo in 1275, and was subsequently destroyed by Kublai-Khan, the fourth king of the Mongolian dynasty, for rebelling against his authority. See Works of the Orkhon Expedition, 1892; and Campbell's Journeys in Mongolia in Geographical Journal, vol. xx.. 1903.

Kara-kul: 1. Two lakes, distinguished as 'Great' and 'Little' Kara-kul, in the prov. of Ferghana, Central Asia. The former has an area of 140 sq. m., and lies at an altitude of 13,200 ft.; the latter lies N.W. of the Mustagh-ata peak, at an altitude of 12,700 ft. 2. A tn. of Central Asia in Turkestan, on the Zeraishan, 38 m.

S.W. of Bokhara.

Kara-Kum: 1. (Black Sands) A desert in Russian Central Asia, extending between the Ust-urt plateau, on the N. and W., the Amu-daria on the N.E., and the Turcoman cases on the S., with an area of about 110,000 sq. m. 2. A desert in Turkestan, S. of Khiya, also known as the Desert of Khiva of Khiva.

Karamania, see Caramania Karamzin,

(1765-1826),historian, born at Mikhaniovka in Situa Orenburg. He studied at Moscow and 19° 5 St. Petersburg, and, after travelling 97° 5 through Europe and in England, he high.

His great

Romanov (1613).

1600.

Karanja, a tn. of British India, situated in the district of Berar, and about 36 m. S.S.W. of Amráoti. Pop 16,500.

Kara Sea, a part of the Arctic Ocean in the N.E. of Russia, between Nova Zembla and the Yalmal Peninsula, Siberia. On the W. it is entered by Matochkin Strait, and on the S.W. by the Straits of Kara and Yugor. The chief inlets are Kara Bay and the Gulf of Obi. It is only open for two months in the year; at other times it is blocked by ice.

Karashahr, a fort and oasis of Chinese Turkestan, situated in lati-tude 42° 10′ N., on the R. Yulduz.

Pop. 5000.

Karasu-Bazar, a tn. of Russia, in the Crimea. In the vicinity are vineyards and gardens, and an export trade in fruit is carried on. 13,000.

Karategin, a dist. of Bokhara, Central Asia, S. of the Russian prov. Ferghana, has an area of 4300 sq. m. It is very mountainous, and is watered by the Surkh-ab or Kizil-su. The chief occupations are agriculture and cattle raising; the crops grown are wheat, cotton, hemp. and fruits. The capital is Garm or Harm. Pop. (composed of Tajiks and Kirghiz) 100,000.

Karauli: 1. A state in Rajputana, India, has an area of 1240 sq. m. The surface is hilly and building stone is quarried. The chief manufactures are pewter and brass ware and cloth. Pop. 156,600. 2. A tn. and cap. of above state, is fortified and sur-rounded by a wall of red sandstone. It contains several beautiful temples

at contains several beautiful temples and a fine palace. Pop. 23,500.

Karczag, a tn. of Hungary in the co. of Jasz-Nagykun-Szolnok, 36 m. W.S.W. of Debreczin. Pop. 21,000.

Karelia, a dist. in N.W. Russla, including the S.E. part of Finland, was annexed by Peter the Great in The Karelians are a distinct The Karelians are a distinct branch of the Finnish race, inhabiting E. Finland and numbering about 300.000.

0,000. Karenni, a dist. of Lower Burma. 10' and icipally ft. and is inhabited by the Red Karens. The cap. of co. Karlskrona. It was named district, formerly a collection of small states, is now divided into E. and W. Karenni, having a total area of about

3150 sq. m.

Karens, a native race of Siam and Burma, dwelling among the hilly districts. They number about 727,000, and are supposed to have Chinese descended fromcertain Many of them have been Christianised, specially the White K., who differ from the Red K, in being less wild and more law-abiding than the latter.

Karikal, on the Coromandel coast. Madras, India, is a French settle-ment. Its area is about 52 sq. m. The town lies about 150 m. S. of Madras and exports large quantities of rice.
Pop. about 18,000.
Kariot, see Nikaria.

Karli, a cave temple in Poona dist., Bombay, British India, is 34 m. N.W. of Poona. It is the largest known Chaitya cave in India, and bears an inscription dated 78 B.C.

Karlings, see Carlovingians. Karlocza, or Karlowitz, a tn. in oatia-Slavonia. Hungary, 73 m. Karlocza, or Ranowsz, Croatia-Slavonia, Hungary, 73 m. Croatia-Slavonia, Hungary, 73 m. S.E. of Peterwardein. In 1699 a treaty was concluded here between Turkey and the four powers of Austria, Poland, Venice, and Russia. It contains a cathedral and is the seat of a Greek archbishop. Famous red wine is made in the district. Pop.

5750.

Karlsbad, a tn. and watering-place of Bohemia, Austria, situated on the Tepl near its junction with the Eger, about 70 m. N.W. of Prague. lies in a narrow valley at an elevation of over 1000 ft. above sea-level, and contains several famous springs, the water being alkaline. One of the best known is the Sprudel Spring, with a temperature of 165° F. The waters were known on account of their healing properties during the 14th century. The town also manufs. porce-lain and other articles. Pop. (1911)

17,446. Karlsburg, a fortified tn. of Tran-on the Maros; sylvania, Hungary, on the Maros; 50 m. S. of Klausenburg is the ancient Apulum. It contains many an archæological Roman remains, museum, and a fine Gothic cathedral. It is the seat of a Roman Catholic bishop. The chief trade is in agribishop. cultural produce and wines. Pop.

10,000.

Karlshamn, a seaport of Sweden, on the S. coast, and in the prov. of Blekinge, situated 30 m. N.E. of Christianstad. Pop. 7209.

Karlskrona, a fortified scaport tn. and chief naval station of Sweden, no doubt that at one time they were a on the island of Trötso and four powerful sect, for in 900 Abu Sa'id al smaller ones, in the Baltic, is the Jannabi, the head of a Carmathian

after its founder, Charles XI. The islands are connected with each other and the mainland by fourteen bridges. The harbour, which can accommodate the largest ships, has arsenals, shipyards, and docks blasted from granite rocks; and is defended by strong fortifications. The chief exports are metals, potash, fish, and iron.

Pop. 27,448. Karlsruhe, the cap. of the grand duchy of Baden, Germany, situated about 39 m. W.N.W. of Stuttgart. This city is laid out in the shape of a fan—the palace forming the centre. The chief buildings of the city are the Court Theatre, Zähringen Museum, the Hall of Art, and the polytechnic school. The city is ornamented with fountains, and the gardens of the palace are a public promenade. It is also an important manufacturing centre, among the chief being railway engines and cars, machinery, furniture, carpets, cement, plated goods, and stone ware. This city was laid out in 1715 by the Margrave of Baden. Pop. 133,953.

Karlstad, the cap. of the co. of Vermland, Sweden. It stands at the N. end of Lake Wener, on the island of Thingvalla, and is connected with the mainland by bridges. It manufs. machinery, matches, and tobacco. It is also an enjection is also an episcopal see. Pop. 17,191. Karma, see TRANSMIGRATION OF

Souls. Karmathians, Carmathians, Qarmathians, were a Mohammedan sect named after Hamdan Qarmad, a follower of Hosam ul Ahwazi, who was a missionary of Ahmed, son of the Persian Abdallah ibn Maimun, to-wards the close of the 9th century. The latter's object had been to undermine Islam and the Arabian power by a secret society with various grades, offering inducements to all classes and creeds. This society led its members on from an interpretation of Islam to a total negation thereof, and submission to the head of the society. There were soven, or later rine, stage of the society. In the last stage the initiate was taught that il. the reserve of the Koran needed explanation; he took an oath of submission, and paid a sum of money. He was then led on until in the fifth stage he was taught the uselessness of tradition and the temporary nature of Mohammed's precepts, and in the sixth stage was induced to give up prayer, fasting, etc. He was now no longer a Moslem; and in the other stages more freedom of thought was allowed. The Carmathians are last mentioned in 1050, but there is

state in Bahrein, routed an army sent book which had some influence in against him by Motadid. In Persia promoting educational reform, and his reminiscences, published in 1879ceeded by the Assassins (q.v.), but it is said that the sect still exists in parts of Syria, Persia, Arabia, and India. For their relation to the Fatimites, see FATIMITES.

Karmo, an island of Norway, situated off the W. coast. It is 18 m. in length, and belongs to the prov. of Stayanger. Area 107 sq. m. Pop.

12.000.

Karnal, a tn., cap. of Karnal dist., Punjab, India, 50 m. S.E. of Ambala, is of ancient origin. It is on the old bank of the Jumna, which has changed its course and is now 7 m. away. It was taken by the British in 1805. The chief manufs, are textiles and shoes. Pop. 23,600.

Karnatik, see CARNATIC.

Karnthen, see Carinthia. Karnul, or Kurnool, a tn., cap. of Karnul dist., Madras, British India. 110 m. S.W. of Hyderabad, situated at the junction of the Hindri and Tungabhadra Rivers. It contains an old fort, now completely dismantled. Pop. 24,445.

Karolinenthal, a manufacturing tn. of Bohemia, Austria, and suburb of Prague, adj Pop. 23,000. adjoining it on the N.E.

Karolyi, Aloys (1825-89), an Austrian diplomat, was a member of an old Hungarian family. After various other appointments he became ambassador at Berlin about 1871, and was present at the Berlin Congress. From 1878-88 he was ambassador in London.

Karolyvaros (Slavonic Karlove), a tn. of Hungary, in Croatia-Slavonia, situated 26 m. S.W. by W. of Agram.

Pop. 7500.

Karr, Jean Baptiste Alphonse (1808-90), a French novelist, critic, and journalist, born at Paris, and educated at the College Bourbon, where he became a professor. His first work was Sous les Tillculs, published in 1832, of which the originality and charming humour and sentiment brought him fame.

editor of Le Figare year he started Les publication in a kee in 1848 he founded removed to Nice in

of his works testify, of his works testify, the search of the sear le plus Court, 183 his autobiograph;

Un l'oyage autour one of his most popular works: Fcu contains some ancient temples and Bressier, 1848; Font en Thème, 1853, a the ruins of a fort; was several times

80 under the title of Livre de Bond. He died at St. Raphael (Var).

Karroo (from Hottentot karusa, hard), the name given to the high plateaux in the Cape of Good Hope, plateaux in the Cape of Good Hope, S. Africa, lying between the coast mountains and the Orange R. busin. The area is divided into the Little K. and the Great K., the latter is be-tween the Nieuwyeld Berge and the Zwarte Berge, and is crossed by the railway. During the dry season it is a sandy waste, but after the rains the soil is covered with luxuriant vegetation, which makes rich pasturage for

sheep, goats, ostriches, and cattle.

Kars, a prov. in S.W. Transcaucasia, Russia, on the borders of
Asiatic Turkey, has an area of 7300
sq. m. It is watered by the Aras, Kur, and Arpachai Rivers. The surface is

Turks and Armenians) 350,000. 2. A tn., cap. of above prov., 115 m. S.W. of Tiflis, and connected with it by rail. It is an almost impregnable fortress. In the 16th century it came into the possession of the Turks and was fortified by Sultan Amurath III. In 1828 it was taken by Russia and restored to Turkey. Several times it was besieged, and finally stormed in 1877. It was ceded to Russia by the Berlin Congress in 1878. It contains an 11th-century cathedral and several

mosques, and manufs. carpets and coarse textiles. Pop. 23,000.
Karshi, a tn. in the Khanate of Bokhara, Central Asia, 80 m. S.E. of Bokhara city. It manufs. cutlery, wooleen goods, and carpets. Pop.

25,000.

Karst, the name of a region of Austria, composed of high ridges of he College Bourbon, where a professor. His first work les Tillculs, published in which the originality and humour and sentiment mame.

Austria, composed of high rights of high rights of high points of high rights of

and the water percolates and caverns.

will produce h a landscape e; it is char-

of Trichinopoli. It is the old of the kingdom of Chera, and

Pop. 12,800.

Karwar, a seaport of Bombay, Rarwar, a scaport of Somoay, British India, and cap, of N. Kanara district, 54 m. S.E. of Goa. It is the only reliably safe harbour between Bombay and Cochin. In front of the harbour stand the Oyster Rocks, with a lighthouse visible for 25 m. Pop. 17.000.

Karwin, a tn. in Silesia, Austria, 65 m. S.W. of Cracow; has coal mines and breweries. It contains a fine

castle. Pop. 16,801.

Karystos, a seaport and com. of Greece, situated near the southern extremity of the island of Eubœa. Pop. 9000.

or Kezanluk, a tn. of Kasanlik, Bulgaria, situated in the province of Eski-Saghra, near Adrianople. It was captured from the Turks in 1878, and is noted for its manuf. of attar of roses. Pop. 11,000.

Kasassin, see Kassassin.

Kaschau, a tn. on the Hernad, 130 m. N.E. of Budapest, is the capital of the county of Abaul-Torna, Upper Hungary. It is the seat of a Roman Catholic bishop and has a fine 14th capture. fine 14th century Gothic cathedral. Here the Austrians defeated the Hungarians in 1849. It has celebrated mineral springs. The chief manufs. are gunpowder, paper, sugar, spirits, and tobacco. Pop. 40,200.

Kashan, a tn. in the prov. of Irak-Ajemi, Persia, is 95 m. N.W. of Ispalian. It is on the direct route to Ispahan, and has a thriving trade in brass and copper ware, carpets, silk, and brocades. Pop. 32,000.

Kashgar, an important Turkestan in Central Chinese and is divided into two parts, Kuhna Shahr, or Old City, Yangi Shahr or New City. two cities are five miles dist.

Afak. The new city was built in 1838. Silk and cotton, boots, shoes, and saddlery form the chief manufs.

Pop. (estimated) 50,000.

Kasingar, River, called in some parts the Kizil-su, rises in the Tian-Shan Mts., and flows 500 m. E. to join the Yarkand.

besieged and finally ceded to the intimate friend of Narayan Mahader English in 1801. There are manu-Purmanand. K. was called to the factures of brass ware and tanning. Indian bar in 1872, and made judge Purmanand. K. was called to the Indian bar in 1872, and made judge of the High Court in 1889. His services as member of a commission appointed to deal with the educational system of India were rewarded by the decoration of C.I.E. (1882). K. and Metha originated the Bombay Presidency Association. He translated Bhagwadgila into English for Max Müller, 1879; published Was the Ramayana copied from Homer? (a criticism of Weber's theory), 1873; and other works.

Kashira, a dist. tn. of Russia, in the gov. and 70 m. N.E. of Tula, on the r. b. of the R. Oka. Rye, oats, wheat, barley, and potatoes are grown in the district, and live stock reared. Pop.

6000.

Kashmir, or Cashmere. Properly K. and Jammu is a native state of India. and Jammu is a native state of Inuia, bounded on the N. by the Karakoram Mts., on the E. by Tibet, and on the S. and W. by Punjab and the North-West Provinces. It is politically an important state, guarding the N.W. approach to India, and including part of the Himalayan mountain system to the N. of the Punjab; it also is the principal health resort for Europeans in India. The country is exceedingly in India. The country is exceedingly hilly save in the plain of K., which is about 120 m. N.W. to S.E., and 76 m. wide; the Nanga Garbat Mt. is 26,656 ft. high. The mountains to the E. of the K. valley which flows of the valle;

of the valle; other river of importance. The chief passes to the N. from the valley are those of Kamri (14.000 ft. high), and of from Srinagar to Gilgit. The valley is 3.W. monsoon, and

with an irregular s fertile, the chief tainer - re, the most important, heat, oats, and barley,

cach other, and separated b ceptables and fruits.

Kizir-su. K. is popular as a religious, and commercial centre; it of carpets are the chief industries, and is the seat of Mohammedan culture, gold and silver ornaments, copper and owns the famous shrine of Hazret ware, and silk embroideries are manufactured. factured; Srinagar (the cap.) is noted for papier-maché work. times the inhabitants were snake worshippers (Nagas), but in the time of King Asoko, in 245 n.c., Buddhist parts the Kizil-su, rises in the TianShan Mts., and flows 500 m. E. to
join the Yarkand.

Kashgaria, the name sometimes
given to the district generally known
as Chinese or Eastern Turkestan,
also called Sin-Kinng.

Kashinath Trimbak Telang, (185093), an Indian judge and Oriental
scholar; vice-chancellor of Bombay subordination to the Indian governUniversity (1892). He was a pupil and missionaries visited the country. As resident; it is divided up into the provinces of Jammu, K., Ladakh, Baltistan, and Gilgit. Area 80,900

sq. m.

Kasimbazar, or Cossimbazar, originally a commercial tn. of India, 20 m. W.N.W. of Murshidabad, now decayed. In 1813, when the R. Bhagirathi changed its course, its final ruin took place.

Kasimov, or Kassimov, e tn. in the government of Riazan, Russia, and cap. of the dist. of the same name. It is a manufacturing town. 14,000.

Kasipur, a tn. of the United Prov-inces, British India, 75 m. E.N.E. of Meerut. It is said to be the original capital of the Govisana kingdom.

Pop. 13,000.

Kaskaskia, a riv. of Illinois, U.S.A. It rises in the eastern-central part of the state, and after a south-westerly course of about 300 m. joins the Mississippi at Chester.

Kasr-el-Kebir, a tn. of Morocco, situated about 58 m. S. of Tangiers.

It is the centre of a fruit-growing region. Pop. about 25,000. Kassaba: 1. A tn. of Asia Minor, about 30 m. E. of Smyrna. It trades Pop. 23,000. in cotton and silk. A tn. of Asia Minor, situated S.S.E. of Konich. Pop. 15.000.
 Kassala, a tn. of Egyptian Sudan,

situated on a tributary of the Atbara. about 280 m. S.W. of Suakim. Before the Mahdi's rising it held an important commercial position; it was taken by Italy in 1894 and given back to Egypt three years later. Pop. about 20,000.

Kassan, a tn. in the prov. of Ferana, Russian Turkestan, lying to the N.E. of Kokan. In the vicinity is the cemetery of Sadpir, containing many ancient tombs. Pop. about 10,000.

Kassassin, a canal lock, Egypt, between Ismaila and Zazagig, just over 20 m. W. of Ismaila. It was the scene of the defeat of Arabi Pasha

in 1882.

Kassel, the cap, of the prov. of Hesse-Nassau, Prussia, and is situated on the Fulda, about 30 m. S.W. of Göttingen. The town itself consists of the Altstadt, the Oberneustadt, and Hohenzollern, the new quarter. In the Oberneustadt are situated the old Electoral Palace and the Königsplatz, a square noted for its echo. The town contains also a municipal library and a new picture gallery. It was here that Napoleon III. was kept a prisoner after the battle of Sedan. The manufactures of the town include machinery, cars, mathematical instruments, musical instruments, and iron ware. From 1807-13 K. was the capital of Westphalia. Pop. 153,120.

Kastamuni: 1. A vilayet of Turkeyin-Asia, having on its N. the Black Sea Area about 19,500 sq. m. Pop. about 1,000,000. 2. Also called Kastambul, cap. of the vilayet of the same name. It manufactures copper ware. Pop. 17,000.

Kastoria, a tn. of former European Turkey, situated to the S. of Monastir on the small lake of K. Pop. 9000. Kasur, a tn. of Punjah, British India, 32 m. S. by E. of Lahore. Pop.

22,000. Katanga, a dist. of Belgian Congo, S.E. part of the colony, having an area of 180,000 sq. m. It has copper, gold, iron, and tin mines. Pop. about 1,000,000.

Kater, Henry (1777-1835), an English physicist, born at Bristol; he entered the army in 1794, went to India with his regiment in 1799, and was of much assistance in the trigonometrical survey of India. In 1814 he retired on half-pay and devoted himself to scientific pursuits. His first important contribution to science was his proof of the superiority of the Cassegrainian to the Gregorian telescope: he carried on experiments for determining the length of a second's pendulum, and invented the floating collimator. In 1814 he was decorated with the Order of St. Anne by Russia for his services in verifying the Russian standards of length, and in the same year was made a F.R.S.

Katha, a dist. of Upper Burma, India, having an area of 6994 sq. m. One of its chief rivers is the Irrawadi, and its capital Katha. Gold, copper, iron, and lead are found, and rice. tea, sesamum, and cotton are produced. Pop. 180,000.

Katharine, see CATHERINE.

Kathiawar, a peninsula of India, situated on the W. coast between the Gulfs of Cambay and Cutch It really consists of 187 states, some under the British government and some of them tributary to it. Area about 21,000 sq. m. Pop. about 2,328,000.

Kathimein, or Kadhimein, a tn. of Asiatic Turkey, situated about 5 m. N.W. of Bagdad, on the Tigris. Here are two notable tombs and a Persian mosque, the place being a pilgrims' centre. Pop. about 15,000.

Katkoli, Mikhael Nikiforovitch (1818-87), a Russian man of letters and scholar, born at Moscow and educated at the university there, where he became professor of philosophy in 1845. In his sympathies he was at 66th Library until the accesses was at first Liberal, until the excesses of the party alienated him; in 1856 he founded the Russki Viestnik, to advocate reform primarily. In 1863 advocate reform primarily. In 1863 he became editor of the Moscow Gazette, and henceforth had much in-Moscow fluence on public opinion.

views he was the champion of the the Netherlands, 5 m. N.W. of Leyden. Moderate Conservatives, and opposed to German influence. It was in his paper that Tolstoy first wrote.

Katmandu, see KHATMANDU. Kato, Takacki, Baron (b. 1860), a Japanese ambassador, created baron in 1911. He was educated at the University of Tokyo, and in 1888 secretary to became private the Minister for Foreign Affairs. From 1891-94 he was director of the Banking Bureau and of the Taxation Burcau, Finance Department. From this date till 1899 he was envoyextraordinary and minister - plenipotentiary at the court of St. James; Minister for Foreign Affairs, 1900-1, and again in 1906.

Katrine, Loch, a lake of Scotland. situated in the counties of Stirlingshire and Perthshire, about 5 m. to the E. of Loch Lomond and 9½ m. W. of Callander. It is about 8 m. long, less than a mile wide, and discharges its water through Lochs Achray and Vennachar to R. Teith. It also sup-plies the town of Glasgow with water. It is situated among some of the most beautiful scenery in Scotland, in the heart of the Trossachs, with Ben Venue and Ben A'an on its bank. The principal scene of Scott's Lady of the Lake is laid on Ellen's Isle in this loch.

Kat River, a riv. of Cape of Good Hope. It rises in the Winterberg Mts., and joins the Great Fish R., the stream thus formed being known as

the Great Salt R.

Prince (b. 1847). Katsura Tara, a Japanese soldier and statesman, born in the province of Choshiu. After seeing service in the Civil War of the Restoration, his military talent was so conspicuous that he was sent in 1870 to study in Germany at his country's expense; from 1875-78 he was military attaché at the Berlin embassy. In 1884 he became vice-minister of war, and served with dis-tinction in the campaign of 1894-95, receiving the title of viscount. After being Minister of War from 1898-1901 he became Premier, an office which he held for four years, a record time in Japan. For his services he was raised to the rank of count in 1902, and marquess in 1905, when King Edward made him a K.C.M.G.

Katta-Kurgan, a tn. of Bokhara, Russian Turkestan, situated in the province and 15 m. W. by rail of Samarkand. Pop. 10,000.

Kattegat, see CATTEGAT.

Kattowitz, a tn. in the prov. of Silesia, Prussia, situated 8 m. S.E. of Beuthen. It is engaged in the manuf, of iron and in coal-mining. Pop. 43,170. manuf. of iron and in coal-mining. the Russian general. Constantine Pop. 43,170.
Katwijk, a com., seaside resort, and fishing-vil. of S. Holland prov., a German painter, born at Arolsen in

It is near the mouth of the Aude Rijn (Old Rhine), and has stone

dykes. Pop. 10,417.

Katvavana. The most celebrated Katyayana. The most celebrated man of this name was a Sanskrit grammarian of the Deccan fl. c. 3rd century B.c.), author of Värtikkās (supplementary rules to, perhaps a criticism of Panini's Grammar, treating of about one-Grammar, treating of about one-third of his aphorisms), and of other works. These in turn were collected and commented on by Patanjali. See Weber, White Yajur-Veda, 1859; Macdonell, Sanskrit Literature, 1900.

Katzbach, a river of Prussian Silesia, flowing N.E. past Liegnitz into the R. Oder at Parchwitz, 29 m. from Breslau. The Prussians, under Blücher, defeated the French, under Macdonald, on its banks in 1813.

Kaub, see CAUB.

Kaufbeuren, a tn. of Bavaria, Germany, Swabia gov., 35 m. S.W. of Augsburg. There are two mediawal churches and a town hall (Renaissance style). It manufs. textiles, yarn, and machinery, and has a large lithographic establishment. 8948.

Kauffmann, Angelica (1741-1807), an artist and royal academician, born at Chur in the Grisons. She was at Chur in the Grisons. She was taught by her father, a somewhat mediocre painter, and at the early age of eleven was painting portraits of Italian notabilities. She visited Milan, Rome, Bologna, and Venice, and appeared in London in 1766, one of her first works being a portrait of Cornilla Sharper before a contraint. of Garrick. She was befriended by Sir Joshua Reynolds, and soon became famous as a painter of classic and mythological pictures and portraits. She painted many pictures, represented in the principal galleries of London and the Continent, but is best known by her engravings from designs by Bartolozzi and others. See

Life by Giovanni de Rossi, 1810. Kaufmann, Constantine (1818-82), a Russian general, born hear Ivan-gorod. He distinguished himself at Kars in 1855 and was appointed military governor of Turkestan in occupying Samarkanu occupying Samarkanu rear. In 1873 he com-1867, following year. manded Khiva, and two years later con-quered Khokand. He died at Tashkend.

Kaufmann Peak, the highest peak in the Trans-Alai Mts., Central Asia, on the Pamirs. It is about 23,000 ft. high, one of the loftiest summits of the Tian-Shan system, named after

Waldeck. He was a pupil of Cornelius India, Bilaspur district. at the Düsseldorf Academy, and sq. m. Pop. 57,000. followed his master to Munich in Kawau, an island of No. 1825, and succeeded him as director of the academy there in 1849, an office which he continued to hold till his death. K. matured the practice of

oration. ppeared Schiller, Fuchs.

He also showed creative imagination in the 'Destruction of Jerusalem,' and the 'Battle of the Huns.' His and the Battle of the Huns. His ultimate work was a vast canvas, over 30 ft. long, entitled the 'Sea-Fight at Salamis,' painted at Munich. Sec Life by H. Müller, 1892.

Kaunitz, Wenzel Anton, Prince von August 1992.

(1711-94), an Austrian statesman and diplomatist, born at Vienna. He was trained for the law at Vienna, Leipzig, and Leyden. From 1742-44 he was minister at Turin. In 1748 he distinguished himself at the congress of Aix-la-Chapelle and was Austrian ambassador at the French court from 1750-52, forming an alliance between France and Austria From 1753-92 he was state-chancellor and chief minister, and in 1756 formed the coalition against Frederick the Great. He took an active part in ecclesias-

tical reforms and was a patron of arts and sciences. See *Life* by Beer, 1872. Kavanagh, Arthur Macmorrough (1831-89), an Irish politician, born in Ireland of a family which traced its descent from the kings of Ulster. Between 1846 and 1853 he travelled much in Egypt, Persia, India, etc. He was M.P. for co. Wexford from 1866-68, for co. Carlow from 1868-80, and was made a member of the Privy

Council of Ireland in 1886

Kavanagh, Julia (182 – 477), British novelist, born at Thurles, co. Tipperary. Spent several years of her life in Normandy and Paris, and began her literary career in London in 1844, the first work to attract notice being Madeleine, a Tale of Auvergne. She also wrote Nathalie; French Women of Letters; English Women of Letters; A Winter in the Two Sicilies, etc.

Kaveri, River, see CAUVERY.

Kavirondo, a region of Uganda Protectorate in British E. Africa, N.E. of Lake Victoria Nyanza. Two distinct races dwell there—Bantu and Negro tribes. The district is mostly fertile and well watered. See *Uganda* by Johnston (1902), Cunningham (1905).

Kawagoe, a tn. of Japan in Hondo, situated in the province of Musashi, and 24 m. N.W. of Tokio. Pop. 16,000.

Kawardha, a feudatory state and tired from the army in 1841. In 1856 tn. of Central Provinces, British he entered the East India Company's

Area 800

Kawau, an island of New Zealand, situated in the Gulf of Hauraki, 30 m. N. of Auckland. Its circumference is 20 m., and it is a favourite resort for

yachting and pionic parties.

Kay (or Ke, Kei, Queux, etc.), Sir, in Arthurian legend, the foster-brother of Arthur, who made him his seneschal. Surnamed 'The Rude' and 'The Boastful,' he is represented as treacherous and malicious and bitter and sarcastic in speech. He figures in the Brut, Perceval li Gallois, Golagnos and Gawayne (pamphlet printed in 1508 by Chepman and Myllar), and Gawain and Kay (in the Dutch Lancelot). See Malory's Morte d'Arthur, 1485.

Kay, John, or Kay of Bury (fl. 1733-64), an English inventor, by 1730 a reed-maker for looms. In 1733 he took out a patent for his fly-shuttle. by which arrangement only one hand was required to throw the shuttle backwards and forwards. He also invented the extended lathe, and a card-making engine. See Woodcroft, Brief Biography of Inventors, 1863; Guest, History of the Cotton Manu-

Guest, Assory of the Cotton Manufacture, 1823; Barlow, History of Weaving, 1878.

Kay, John (1742-1826), a Scottish caricaturist, a member of the Society of Surgeon-Barbers (1771). In 1785 he opened a print-shop in Parliament Close, Edinburgh, and produced miniatures and sketches of local celebrities. These are chiefly of antiquarian interest, as a record of the social life of his times. See Collection of his portraits by Paton, 1838, 1842, 1877; Anderson, Scottish Nation, 1875; Redgrave, Dictionary of Artists, 1878.

Kayak, or Kajac, an Eskimo term for a fishing-boat, common to all dialects from Greenland to Alaska, strictly only for that used by a man, the woman's being an 'umiak.' It is a long, narrow, decked canoe, the light wood framework being covered with sealskin, and weighs about 60 lbs

Kaye, John (1783-1853), Bishop of Lincoln, born in Hammersmith. He studied at Christ's College, Cambridge, where in 1816, after occupying the position of vice-chancellor, he was made regius professor of divinity. In 1820 he was consecrated Bishop of Bristol, and seven years later was translated to Lincoln. He published an important Ecclesiastical History of the Second and Third Centuries, etc. and many works on the Fathers of the Church.

Kaye, Sir John William (1814-76), an English soldier and historian, re-

service, and succeeded J. S. Mill as | leather tanning, and the manuf. of secretary in the Political and Secret Dept. of the India office (1857-74). K. founded the Calculta Review (1844) and wrote History of the War in Afghanistan, 1851-53; History of the Administration of the East India Company, 1853.

Kayes, or Khayes, a French station in W. Africa, on the Senegal, which is navigable to this point during time of flood (May to November), 7 m. from Medina. It has good fortifications. A railway (constructed in 1890) connects it with St. Louis, and there is communication also towards the Niger with Befulabé and Koulikoro.

Pop. about 10,000. Kay - Shuttleworth, Sir James Phillips (1804-77), an English politi-cian and educationalist, born at Rochdale, Lancashire. In 1824 he became a medical student at Edinburgh University, and then gained experience by working among the poor in the Lancashire factory districts, which led to his appointment in 1835 as poor-law commissioner in Norfolk and Suffolk, and later in the Lancashire factory districts. In 1839 he was nominated First Secretary to the Committee of the Privy Council on Education, and was instrumental in establishing a system of government school inspection. He founded the first training college for school-teachers at Battersea (1839-40) in conjunction with E. Carleton Tufnell. He was created a baronet in 1849, on his retirement from public life. He wrote numerous papers on education, and his Physiology, Pathology, and Treatment of Asphuxia, became a standard text-book.

Kazala, or Kazalinsk, a tn. in the Russian prov. of Syr-daria, Western Turkestan, on the Syr-daria R. which floods the town in spring, in 45° 45' N. and 62° 7' E. It is situated at the junction of the principal trade routes of Central Asia, and carries on an active trade with the surrounding district.

Kazan: 1. A gov. of European Russia, having an area of about 24,600 sq. m. The principal rivers are the Volga and the Kama, a large amount of the surface being covered by forests. The chief occupation of the people is agriculture. This the people is agriculture. This government was annexed to Russia in 1552. Pop. 2,711,000. 2. The cap. of the gov. of the same name, lying about 200 E. of Nijni-Novgorod. The kremlin, or citadel, contains a cathedral in which is an image of the Virgin famous Russia. The universit founded in 1804, has a of students. The chief .

soap, iron, steel, and cloth. are also shipbuilding yards in the vicinity. K. itself is an important trading centre between parts of Asia and Europe. Pop. 179,201. Kazanskaya, a Cossack vil. of N. Caucasia, situated 92 m. N.N.W. of

Stavropol, on the Kuban R. 7000.

Kazbek, or Casbeck, a peak of the Caucasus, third highest in the range (16,546 ft.). The Devdorak glacier gives rise to huge avalanches, with sometimes stay the course of the Terek.

Kazinczy, Ferency (1759-1831), a Hungarian man of letters, born at Er-Semlye in co. Bihar, and studied law at Kassa and Epries. He started the first Magyar literary magazine in 1788. Becoming implicated in a conspiracy of the Abbot Martinovics, he was sentenced to death in 1794, but the sentence was commuted to imprisonment. On his release in 1801 he retired to Szephalom, where he died. His influence on the revival of Hungarian literature was very great.

Keady, a linen-manufacturing vil. co. Armagh, Ulster, Ireland.

Pop. 5500.

Kealakekua, a bay in Hawaii, one of the Sandwich Is. It was here that their discoverer, Captain Cook, was murdered in 1779.

Kean, Charles John (18117-68), an actor, the second son of Edmund K., appeared at the age of sixteen as Young Norval in Home's Douglas at Drury Lane. The fayourable impression he made secured him an engagement at the Haymarket, where he was successful as Hamlet. Among his other triumphs were Richard III., Sir Giles Overreach, and Louis XI.
Many of the parts he created were,
however, subsequently better played
by Sir Henry Irving. He went more
than once to the United States, where
he was heartily welcomed, and where he made much money. He married, in 1842. Ellen Tree. There is a blo-1842, Ellen Tree. There is a graphy by J. W. Cole, 1859.

Kean, Edmund (1787-1833),

actor, went on the stage as a child, and at the age of fourteen played Prince Arthur in King John, with Kemble and Mrs. Siddons. In 1814 he won his spurs at Drury Lane with a magnificent performance of Shy-lock, and the reputation he then acquired was vastly increased by his Richard III and Hamlet. He had his failures, but in the annals of the English stage he was unrivalled in tragic rôles. Owing to drunkenness

il extravagance, he fell on this last years. There are by Barry Cornwall, 1835, Jawkins, 1869.

Kean, Ellen (1805-80), an actress, achieved success on the stage at an early age, under her maiden name, Ellen Tree, making her début at Covent Garden in 1823, and it was at this theatre about eight years later that she played Romeo to the Juliet of Fanny Kemble. In 1842she married Charles Kean, after whose death, in 1868, she retired into private life.

Keane, Augustus Henry (1833-1912). an ethnologist and writer on geo-graphy, was a student in Jersey, Italy, Dublin, and Hanover. His life, apart from travels in Europe and N. America. was engrossed in literary labours, which were recognised by the vicepresidency of the Anthropological Institute, and more substantially by a small civil pension in 1897. He was the author of Stanford's Asia, Africa, and Central and South America, whilst Ethnology and The World's Peoples are two of his studies in anthropology.

Keane, John, first Lord Keane (1781-1844), an English general, entered the army at the age of twelve. In 1799 he became captain, and served several years in the Mediterranean, and also in Spain under Wellington, being made a colonel in 1812, major-general in 1814, and general in 1815. From 1823-30 he was commander of the forces in Jamaica. In 1839 he performed his most famous exploit, the capture of Ghazin, for which he was raised to the pecage. He was not so much a great as a fortunate soldier.

Kearney, a manufacturing tn., and the cap. of Buffalo co. in Nebraska, U.S.A. Pop. (1910) 6202.

Kearny, a manufacturing tn. in Hudson co., New Jersey, U.S.A. Bridges spanning the Passaic connect twith Newark. Pop. (1910) 18,659.
Kearsley, or Kersley, a tn. with coal mines and paper mills, 41 m. S.E. of Caret. Pale and Lange of the England.

Great Bolton in Lancashire, England.

Pop. (1911) 9676. Keats, John (1795-1821), a poet, was intended to be a surgeon, and in 1816 was a dresser at Guy's Hospital. but soon after he abandoned any intention of pursuing this profession. He made the acquaintance of Leigh Hunt, and began to publish verse in the latter's paper, The Examiner. the latter's paper, Shelley, who greatly admired him, assisted him to bring out in 1817 a assisted him to bring out in 1817 a rolume of Poems, which attracted no attention among the general public. Undismayed by failure, K. began to write Endymion, which appeared in 1818, but did not at once win that chorus of praise with which it has since been rewarded. Indeed, K. was bitterly attacked by Lockhart in Blackwood's, and Croker in the Q terly, but after the first shock, confidence returned, and he was to say. I think I shall be among the years later, when he was director of

English poets after my death,' than which no self-criticism was ever more true. His other works include Hyperion, 1818; The Eve of St. Agnes, 1819; L and Lcone of the i deserving of very high praise for his imagination, tenderness, and lyrica gifts. His odes are not excelled by any writer. It is probable that but for his early death, he would have attained to an even greater place in literature. There is a biography by

Lord Houghton (1848). Keble, John (1792-1866), an English divine, won a first-class honours, when, in 1811, he graduated from Gorpus Christi College, Oxford, Fellow and tutor of Oriel from 1811-23, he was professor of poetry in Oxford from 1831-41, and finally in 1836 settled down in the country yicarage of Hursley, Hampshire, where stayed till his death. In disposition K. was shy and unassuming, and, considering his talents, strangely unambitious. His friends have left generous tributes to his winning personality, his unsparing devotion to his duties as parish priest, and his unselfish care of a sick father. A Tory and cavalier in politics, he was, according to Newman, the 'true and primary author' of the Oxford movement in the English Church. It grew out of his famous sermon on 'National Apostasy,' 1833, the High Church sympathies of which re-appear in his contributions to the celebrated Tracts for the Times in his standard edition of Hooker's works (1836), and in all his sermons and poems. He is popularly known for his book of poems, The Christian Year, 1827.
Koble College, Oxford, a modern college, opened in 1869, and crected

in memory of John Keble, the poet.

Kecskemet, a leather and soap manufacturing tn., 65 m. S.S.E. of Budapest, Hungary. Pop. (1910) 66,834.

Kedah, a state on the W. of Malay Peninsula. Rice is widely cultivated. and there are rice mills at Alor Star, the capital, and Kuala Muda. The area is about 4000 sq. m. Pop. about 220,000.

Kedarnath, a city in the Garhwal dist, of the N.W. provinces of British

the Alleghany Observatory, he veri-lengravers. He soon began to indulge fied by spectroscopic investigations his artistic tastes, and illustrated Robthe theory already advanced that Saturn's rings consisted of 'discrete

particles of unknown minuteness.

Keeley, Mary Ann (1805 or 1806-99),
an English actress, left a lasting impression on all who saw her spirited impersonation of Jack Sheppard in a play founded on Ainsworth's novel of nical skill in his day. There is a that name. The hero, however, was a biography by G. S. Layard, 1892. criminal, and the performance of the Keep, see CASTLE. piece was accordingly forbidden. In 1829 she married the comedian, Robert Keeley (1793-1869) and appeared with him at the Olympic with Charles Mathews, at Drury Lane with Macready, and with Kean at the Hay-market. Two of her finest rôles were Nerissa in The Last Days of Pompeii, and Smike in Nicholas Nickleby.

Keeley, Robert (1793-1869),

Giovanni.

Keelhauling (Dutch Kielhaalen, to careen a ship), means to haul under the keel of a ship, and was for long a notorious form of punishment inflicted for various offences in almost all navies, and on merchantmen. The offender was suspended by a rope from a yard-arm with weights on his legs, while another rope was fastened to him and carried under the ship's keel to the opposite yard-arm. He was then dropped into the water, dragged under the ship's bottom, and drawn up again on the other side. Graphic descriptions of this barbarous practice are to be found in Marryat's novel, Snarlemow.

Keeling or Cocos Islands, a group of twenty-three small inhabited coral islands in the Indian Ocean, between 12° 4' and 12° 13' S. and 96° 49' to 57' E. Discovered by Captain Keeling in 1609, they entered the British protectorate in 1856, and since 1882 have been annexed to the Straits Settlements. They abound in cocoanut palms, and enjoy an equable, invigorating climate. Pop. 650.

Keene, a city on the Ashuelot R., 44 m. S.W. of Concord, and the county-seat of Cheshire co., New Hampshire, U.S.A. K., which is K., which is situated on a level expanse guarded by high hills, manufactures boots and shoes, chairs, pottery, etc. (1910) 10,068. Pop.

inson Crusoe and other works. contributing to the Illustrated London News, his drawings began to appear in Punch, the staff of which he presently joined. As a humorist he was delightful, and as a black-and-white artist he had no rival for tech-

Keeper of the Great Seal, the officer of state who holds the Great Seal, i.e. the Lord High Chancellor (q.v.), formerly called the Lord Keeper. The delivery of the Great Seal into the hands of the Chancellor confers the chancellorship upon him. Since the union with Scotland (1707) there has been only one Great Seal for the United Kingdom. The Great Seal is Keeley, Robert (1793-1869), an United Kingdom. The Great Seal is actor, appeared at the Olympic, used for sealing public documents of Adephi, Drury Lane, Lyceum, and Covent Garden, and acted with Charles Kemble. Macready, and Kean. of the Crown in Chancery being the Essentially a comedian, K. was excellent as the rustic boor or slow-witted dupe. His best rôles were Seal has been largely superseded by Rumfit in Peake's Duel, Diego in The Charles Wear Country in Peake's Duel, Diego in The Charles Wear Country in Peake's Duel, Diego in The Charles Wear Country in Chancery being the Country being the Charles Wear with foreign powers are still ratified by Letters Patent under the Great Seal. On a demise of the crown, when a new Great Seal must be made, the old seal belongs to the chancellor, though it is first theoretically broken or 'damasked' by a light blow with a hammer. See Campbell's Lives of

the Chancellors. Keewatin (North-wind), a former district of North-Western Canada, now absorbed in the provs. of Mani-

toba and Ontario.

Kelli, a tn. of N. Nigeria. Central Africa, situated 110 m. N.E. of the junction of the rivers Niger and Benue.

Pop. 80,000.

Kehl, a manufacturing city opposite Strassburg, on the Rhine, in the circle of Offenburg of the grand-duchy

of Baden, Germany. Pop. 8860. Kei, or Great Kei, a S. African riv. which borders the Cape of Good Hope on the E. After the confluence of the Black and White K., it flows S.E. to the Indian Ocean

Keighley, a woollen manufacturing town, near the confluence of the Worth and Aire, 84 m. N.W. of Bradford, in the West Riding of Yorkshire, England. Canals connect it with Liverpool and Hull. Pop. (1911)

43,490.

Keightley, Thomas (1789-1872), an Irish author, attended Trinity College, Dublin, but took no degree. He cherished, it seems, an exaggerated Keene, Charles Samuel (1823-91), idea of his own literary merits, but an artist, at the age of nineteen the fact that he was a good linguist was apprenticed to a firm of wood- won sincere appreciation of his his-

torical compilations, and excelled, | Crasus (1710), most of them being moreover, in that sine qua non of the | produced at Hamburg, where most of moreover, in that sine qua non of the journalist, namely versatility, proves him to have been a man of no mean talent. His Fairy Mythology appeared in 1828, and he published accounts of the Greek War of Independence (1830) and the Crusaders (1834). From 1837-47 he was chiefly engaged in writing histories of England in writing histories of England, Greece, the Roman republic and empire, and India. These were followed by critical editions of Virgil and Sal-

Hist, Milton and Shakespeare.

Kei (or Ke) Islands, a group in the Dutch E. Indies, lying between 5° to 6° 6° S. and 131° 50′ to 133° E. They comprise Great Kei and Little Kei (which is volcanic), and smaller islands. Cocoa-nutsabound, and sago, maize, tobacco, etc., are profitably cultivated. Polynesians, Papuans, and Malays make up a population of

23,000.

Keil, Karl Friedrich (1807-88), a German biblical critic, born at Oclsnitz in Saxony, and lived at Dorpat for over twenty years. Here he was appointed privat-docent in 1833, and appointed privat-to-cent in 1205, and five years later 100 to professor. One of his earlier works was Biblische Archäologie, 1859. A series of commentaries on the Synoptic Gospels, the Epistle to the Hebrows, and the

Keill, John (1671-1721) mathematician and graduated as M.A. from University of Edinburgh.

sicam (1701) was a course of lectures he escaped from the Russian empire, which he delivered at Oxford. He also entered the Prussian army, fought at published text-books on geometry and trigonometry. His Introductio ad veram Astronomiam (1718) was again a series of Oxford lectures. In 1712 he had proudly accepted the Savilian chair of astronomy. Leibnitz, who claimed to have invented Newton's fluxional calculus, was successfully attacked in a controversy by K., who came forward as Newton's champion.

Keim, Karl Theodor (1825-78), a German Protestant theologian, at-

tended lectures at the universities of Tübingen and Bonn, and from 1859-73 held the chair of theology at Zürich. His most ambitious work

m Gesamtleben ,, 1867-72.

Keiser, Reinhard (1673-1739), a composer of church music and the composer of church music and the Keith-Falconer, Ion Grant Neville chief figure in the early development of opera in Germany. He left over atted from Trinity College, Cambridge, 100 operas, of which the chief were in 1878, and afterwards won a first Adonis (1697), Casar (1703), and class in the Semitic language tripos.

produced at Hamburg, where most of his life was passed. In some ways K. is the precursor of Handel.

Keith, an agricultural centre of Banfishire, Scotland. It is situated 45 m. N.W. of Aberdeen by rail. Pop.

(1911) 4499.

Keith, George Elphinstone Keith, (1746-1823), an admiral, Viscount distinguished himself as commander of the Perseus under Lord Howe in the siege of Charleston (1780), and again under Lord Hood during the siege of Toulon (1793). In 1796 he wrested from the Dutch their settlement in the Cape of Good Hope, and obliged a detachment of their fleet to surrender in Saldanha Bay. The following year he assisted in the suppression of the mutiny at Sheerness, and in 1799, as commander in Spanish waters, effected a skilful landing at Aboukir.

Keith, James Francis Edward, known as Marshal Keith (1696-1758), a field-marshal under Frederick the Great, took part in the Jacobite Rebellion of 1715, and on its collapse escaped to Brittany. This adventure of his earlier works was Biblische Archäologie, 1859. A series of composition mentaries on the Synoptic Gospels, the Epistle to the Hebrews, and the Epistle sof Jude and Peter reveals his at thoughtful excepte, whilst his Einleitung to the O.T. has made a definite appeal to a large body of students and scholars. Keill, John (1671-1721) (1736 - 37) he displayed signal he storming of Otcha-

r gained equal distincvedish War of 1741-43. jealousy of a foreigner

chered the Prussian army, fought at Losowitz and Rossbach, conducted the unsuccessful siege of Olmütz, and finally died on the battlefield of Hochkirchen. In soldierly virtues he excelled all 'Scots abroad.'

Koith Sir Bobart Murray & B.

Keith, Sir Robert Murray, K.B. (1730-95), a British diplomat, was descended through his father, Robert K., also in the diplomatic service, K., also in the diplomatic service, from a younger son, the second earl marischal of the K. family. He entered the army, and became colonel of the 87th Foot, known as Keith's Highlanders. When the regiment was disbanded in 1763, he entered the diplomatic service, in which his intropidity and linguistic abilities won him success. He was made lientenant. him success. He was made licutenant-general in 1781 and privy councillor in 1789.

President of the London Bicycle Club | richness of his humorous vein, whilst (1877-86), he rode in thirteen days (less 45 minutes) from Land's End to John-o'-Groats (994 m.). Orientalists are warm in praise of his translation of the Syriac version of Fables of Bidpai, 1885. He died prematurely of a fever whilst founding a mission

station near Aden. Kekulé, Friedrich August (1829-96), a German chemist, was persuaded by Liebig to take up chemistry, and after studying in Giessen and con-versing with leading chemists in Paris and England, accepted a professorship of his science at Ghent (1858) and later at Boun University (1865). Besides editing Annalen der Chemie, he published Lehrbuch der organischen Chemie. His 'closed-'closedchain theory of benzene has given a remarkable stimulus to the pre-paration of aniline dyes, whilst his doctrine of atomic affinities has become an integral part of chemical theory.

Kelat, see KHELAT.

Kelland, Philip (1808-79), an English mathematician, graduated from Queens' College, Cambridge, and in 1834 was senior wrangler. From 1838-79 he held the chair of mathematics at Edinburgh University, and proved himself a born teacher. publications include: How to Improve the Scotlish Universities, 1855 (a subject in which he was deeply interested), and the article on 'Algebra' in the 9th ed. of the Encyclopædia Brilannica. the

Kellaways Rock, the geological name for alternate layers of highlyfossilised sands and clays among which irregular calcareous sandstones are freely interspersed The name is derived from a Wiltshire

village.

Keller, Gottfried (1819-90), a German poet and writer of fiction, was the son of a master joiner of Zürich. For two years he studied art in Munich, but early discovered that literature was his vocation. For five years he lived in Berlin (1850-55), and from 1861-76 acted as secretary to his native canton. His volume of poetry, Gedichte (1846), emphasies his high creative faculty, whilst the writing of Der grüne Heinrich, his finest novel (1851-53), implies an imaginative temperament readily responsive to beauty and the nobler emotions. K. was peculiarly felicitous in his handling of the short story, and his sketches of Swiss provincial life entitled Die Leule von Seldwyla (1856, a second series of which appeared in

the impression left by the tragic intensity of the latter does not soon

pass away.

pass away.

Kellermann, François Christophe
de (1735-1820), Duke of Valmy and
Marshal of France, was a Republican
throughout the Great Revolution.
His brilliant victory of Valmy (1792)
delivered the infant republic from
the dread of Prussian domination, and, in the words of Goethe, opened a new era in the world's history. Under Napoleon he was given the command of the reserves. Latterly he sat in the Chamber of Peers.

Kellgren Johan Henrik (1751-95), a Swedish poet, studied at the University of Abo, was joint-editor and

served secretai against

mastery over satir ficiency in humour. over satire and his de-But these will soon be forgotten, whilst such charming songs as Nya skapelsen and the many lyrics scattered up and down his four librettos will ensure a long immortality.

Kells, a market tn., 38 m. N.W. of Dublin, connected by rail with Dublin and Drogheda, in co. Meath, Ireland. Its interest is antiquarian. In the churchyard stands an ancient round tower (99 ft.), and in the market-place a carved stone cross. The stoneroofed cell of St. Columba, who dwelt here in the 6th century, is still shown.

Pop. (1911) 2400.

Kelly, Hugh (1739-77), a playwright, born in Killarney, Ireland. He came to London and lived for a time in great privation, but ultimately procured a remunerative position in an attorney's office. From about 1762 he wrote essays, poetry, criticisms, and on politics. His play Thespsis attracted Garrick, and False Delicacy, a comedy, was produced under his auspices. A Word to the Wise was a failure—in Dr. Johnson's words, fell a sacrifice to popular fury, and, in playhouse phrase, was damned '-owing to a demonstration by John Wilkes and his supporters. K. published besides: Clementina, a tragedy; The School for Wives; Romance Hour; and The Man of Reason. Romance of an

Kelly, John (1750-1809), a clerry-man and distinguished student of the Manx language; born in Douglas, Isle of Man. Bishop Hildesley deputed him to assist in translating the Bible and the Prayer Book into Manx. The first portion of the translated Bible was printed in Whitehayen in 1770, 1874) have become classics. In this the second was nearly lost in shipvolume are Die drei gerechlen Kamm- wreck, K. himself saving it, and the macher and Romeo und Julia auf dem whole was issued in 1772. He pub-Dorfe, the first of which shows the lished a Manx grammar (1803); his

at Dublin, studied abroad, and sang tenor parts in many operas at Florence and Vienna, and, later, at Drury Lane. He was manager of the King's Theatre, London, from 1793, and he wrote the musical settings for many plays, including Sheridan's Pizarro. He was the author of many songs, the best-known of which are Flora MacDonald and The Woodpecker. His Reminiscences, composed from his own materials, were written by Theodore Hook (1826), and are

very interesting.

Kelman, Rev. John, D.D. (b. 1864),
a Scottish Presbyterian minister,
cducated at Edinburgh, with a break
of three years' travel and work in Australia. He was assistant to Prof. Smith in Aberdeen (1890), minister of Peterculter, Aberdeenshire (1891), and of New North Church (United (1897-

1907) interc burgh bcen

Edin-T. has and St. George's

minister of United Free Church, Edinburgh. His electrical currents, and was upublications include: The Holy Land; telegraphs, beginning with the Attheory towards God; The Road, a study of Bunyan's Pilgrim's Progress.

Kelp, the product of the combustion of seawceds, that of most value being obtained from drift.

value being obtained from driftweed, such as Fucus vesiculosus, F. scrratus, Laminaria digitata, and L. stenophylla. These are dried in the sun and burnt in shallow pits, one ton of K. being obtained from about 20 tons of scaweed. The product, which consists of hard, dark-greyish masses, consists chiefly of potassium sulphate, 14 per cent.; potassium chloride, 17 per cent.; sodium chloride, 17 per cent.; sodium car-chloride, 14 per cent.; sodium car-bonate, 4 per cent.; and smaller other salts.

Kelpie (' tangie ' or ' shelly-coat '), in Scottish mythology, a kind of water-sprite or river genius, usually with the appearance of a shaggy horse (sometimes of a man), supposed to appear as a warning to those destined shortly to be drowned near that spot. See Jamieson's Dict., 1808; Scott's Heart of Midlothian, iv.

Kelsey Beds, a formation of gravel, marine shells, mammoth remains, etc.

Manxdictionary was totally destroyed by fire while being printed in 1808. burgh. The Tweed here joins the Kelly, Michael (c. 1764-1826), an Teviot, crossed by a handsome five actor and musician, after appearing arch bridge 165 yds. long. Its manufs. are chiefly agricultural manures and implements. Sir Walter Scott was a pupil at the Old Grammar School in 1783. Pop. (1911) 3982. Kelt, see Salmon.

Kelts, see CELTS.

Kelty, a tn. of Scotland in Fife-shire and Kinross-shire, 6 m. N.E. of Dunfermline, with coal mines. Pop. (1911) 3997.

Kelung, a scaport in the island of Formosa, Japan. It is the centre of a large coal-mining district, coal being its

principal export. Pop. about 10,000. Kelvin, William Thomson, Lord, first Baron Kelvin of Largs (1824-1907), a British scientist, educated at Glasgow, Cambridge, and Paris. After a distinguished college career he became professor of natural philosophy at Glasgow University (1846-99). He edited various mathematical journals, contributing to them the results of his much researches in physical phenomena,

mission of electrical currents, and was

was given the title of Lord Kelvin in 1892. His various papers have appeared in book form as Electrostatics and Magnetism, 1884; Mathematical and Physical Papers, 1882-84; Popu-lar Lectures and Addresses; Ballimore Lectures. . . . , 1904. With Talk he ur Lecures and Addresses; Editimore Lectures . . , 1904. With Tait he wrote A Treatise on Natural Philosophy, 1879-83. See Life by Fitzgerald (1899), Munro (1902), Gray (1908), Russell (1912), S. P. Thompson (1910); Bright's Story of the Allantic Cable, 1903; Larmor's 'Lord Kelvin,' Proc. Roy. Soc., 1908; Camb. Math. Journ., iii. 1842.
Kemach. Kemakh. or Gamakh. a

Kemach, Kemakh, or Gamakh, a vil. of Asiatic Turkey, on the Upper Euphrates. Pop. 14,000. Kemble, Charles (1775-1854), an

actor, made his first appearance at Drury Lane in 1794, and quickly rose at Kelsey Hill, near Hedon, and all to an important position in his proround Hull in Yorkshire. It dates from the Pleistocene Age, and was probably deposited in the sea near a river estuary.

Kelso, a market tn. in Roxburgh. Although he played the principal Charles K. in 1806. She continued to

in comedy.

age of twenty she appeared as Juliet at Drury Lane under her father's prov. of Prussia. It manufs. textile management, and at once achieved fabrics, and is remembered as the agreat success. Nor was her subsequent career on the stage less satisfactory, and both in England and America she became very popular, and remained so until her retirement in 1849. She wrote several plays and and remained so until her retirement in 1849. She wrote several plays and an English rear-admiral, served with poems, and Notes on some of Shake-speare's Plays, 1882; and published the very interesting autobiographical when Lord Howe was commander of the fleet (1782) K. served under him, Later Life, 1882; and Further Records, and went down with the Royal George (1861). of letters, who corresponded with her Especially was she a favourite of Edward Fitzgerald, whose letters to her have been published.

Kemble, John Mitchell (1807-57), an historian, was educated at Cambridge, where he was one of the set known as 'The Apostles.' He studied philology in Germany under Grimm, and on his return was recognised as an authority on Anglo-Saxon. He was a many-sided man. In 1833 he edited the poems of Beowulf; from 1835-44 presided over the destinies of the

Î. act pla wh 600 sen tra

tra to take holy orders, and in 1776 abandoned all idea of so doing. In that year he played Theodosius in Lee's tragedy of that name at Wolver Solitary Life of the Good Monl: The tragedy of that name at Wolver Solitary Life; The Vielley of Lilies; hampton, and he remained in the provinces until the autumn of 1783, when he made his bow to the public at Drury Lane as Hamlet—a performance that aroused much conformance in the provinces with the monastic and Christian life, and charge of the Good Monl: The Life of th graphy by Boaden (1825).

tragic rôles his successes were made act after marriage until 1819, when she retired. In 1808 she played in her Kemble, Frances Anne, afterwards own comedy, The Day after the Wed-Mrs. Butler (1809-93), an actress, was ding, at Covent Garden on the occa-

1891. She was a very charming per- at Spithead. Howe improved and son, and very much beloved by men adopted his system of signalling. He wrote religious poetry, including the lyric Burst, ye Emerald Gates.

Kempis, Thomas à (c. 1379-1471),

an Augustinian canon and religious writer, called after his birthplace Kempen, near Düsseldorf. His surname was Hammerken, and he came of a peasant family. At ten he was sent to a school at Deventer, where the influence was strongly religious, and having been convicted of sin in a vision, he decided to enter a holy order. In 1399 he was admitted into the Augustinian convent of Mount British and Foreign Review, and was St. Agnes at Zwolle, and took the Examiner of Plays from 1840. His vows in 1406. He lived a peaceful and Examiner of Plays from 1840. His vows in 1406. He lived a peaceful and principal works were Codex Diploseculed life in this convent, devoting maticus avi Saxonici, 1839-48, and his time to copying manuscripts and The Company of the

ided sermons, some hymns, at number of pious tracts. biographies of Gerhard founder of the school at Florentius Radewyn, a ister of his, and of Groot's ples. His tracts, which deal

book. Two manuscript copies, dated graphy by Boaden (1825).

Kemble, Maria Theresa (1774-1838), 1425, exist, but a more perfect copy an actress, came to England from is in the Bourgogne Library at Vienna about 1786, and acted at Brussels. The earliest English transprury Lane under her maiden name lation is that of Pynson, printed in of Du Camp. She made a popular 1503. An interesting literary consuccess six years later as Macheath in troversy has raged around the author-The Beggar's Opera, and thereafter ship of the Indiation, the other claim-played leading parts, including ants put forward being John Gerson, Portia and Desdemona. She married

and the abbot of Vercelli, but the! learned, as well as the popular, verdict is in favour of the traditional authorship of a K. The Imitation breathes out the quiet and peace of the cloister, and with its combination of simple faith and mysticism appeals to all manner of men and women. Apart from the doctrine of transubstantiation, which is upheld in the fourth book, its teaching is accepted by Christians of all creeds. The work has, too, great literary beauty, and, as pointed out by Dr. Hirsche, in its original form has most harmonious original form has most harmonious cadences and a rhythmical flow. The 'rhythmic sentences' are preserved in Canon Liddon's translation (1889). The editio princeps is that of Sommoclius, Thomas Malleoli à Kempis opera omnia, 1607. Consult M. de Grégory, Mémoire sur le véritable Auteur de l'Imitation, 1830; Kettlewell, Authorship of the De Imitatione, 1877, and Thomas à Kempis and the well, Authorship of the De Imitatione, 1877, and Thomas à Kempis and the Brothers of the Common Life, 1882; Hirsche, Prolegomena zu der Imitatio, 1873-74; English translations by Bishop Goodwin, 1808, and C. Bigg, 1898; Brewer's Life, 1676; F. R. Cruise, Outline of the Life of Thomas à Kempis, 1904; Montmorency, Thomas à Kempis; His Age and Book, 1906, and James Williams, Thomas of Kempis, 1910. A bibliography may be found in Wolfsgruber's Giovanni Gersen, 1880.

Kempston, a vil. of Bedfordshire, England, 2 m, S.W. of Bedford. The chief industry is the making of pillow lace. Pop. (1911) 5351.

lace. Pop. (1911) 5351.

Kempten (ancient Campodunum), a tn. of Bavaria, Swabia gov., on R. Iller, 48 m. S.E. of Ulm. There are manufactures of cotton, textiles, textiles, hosiery, paper monastery wa

of St. Gall (c. a French vict

(1796). Pop. 21,001.

Kempton Park, in the co. of Middle-sex, England, 4 m. W. of Kingston-on-Thames. It is now used as a racecourse with a station on the London and South-Western Railway

Ken, a river of Bundelkhand, British India. It is 250 m. long and flows N.E. to the Junna.

Hows N.E. to the Jumia.

Ken, Thomas (1637-1711), a celebrated English prelate and one of the fathers of hymnology, born at Little Berkhampstead, Berks. Educated at Winchester and Oxford, graduated at Winchester and Oxford, graduated ing in 1664. At the age of twenty-five he took orders and held successively the country livings of Little Easton (Essex), Brightstone (Isle of Wight), and East Woodhay (Hants). In 1674 he visited Rome with roung Isaac and K. His works include: Songs and Walton, his step-sister's son, which resulted in confirming his regard for trailian Forest, 1869; Songs from the

the Anglican Church. In 1679 Charles II. made him chaplain to Mary, wife of William of Orange, and in 1685 nominated him Bishop of Bath and Wells. The chief public event of his bishopric was his trial and acquittal among the 'seven bishops,' who, in 1688, refused to read the Declaration of Indulgence In 1691 he was superseded by Dr. Kidder, Dean of Peterborough for refusing to take the oat of allegiance to William of Orange. Amongst the many beautiful hymns written by K. are, Awake my Soul and with the Sun, and Glory to Thee, my God, this Night. See Lives by J. Lavicount Anderton, 1834, and

Dean Plumptre, 1890.

Kenath, in Bible times a city of Manassch. It is generally accepted that Kanatha was a later name, and that the two places are identical.

Kendal, a market tn. and parl. bor. in the co. of Westmorland, England, 22 m. N. of Lancaster. Woollens,

hosiery, and carpets are manufac-tured. Pop. (1911) 14,033. Kendal, Countess Ehrengard Melu-sina von der Schulenburg, Duchess of (1667-1743), in 1692 entered the service of the Electress Sophia. She attracted the attention of the son of the Electress, George Lewis, and be-came his mistress. When he came to came his mistress. When he came to England as George I., she followed him, and in 1716 was created Duchess of Kendal, and granted valuable pensions. She was very unpopular in this country, and after the king's death returned to Germany, where she remained until her death.

Kendal, William Hunter Grimston (b. 1843), an English actor and

(b. 1843), an English actor and manager, became a member of the Haymarket company (1866-74), and married Madge Robertson (1869), Mr. Mange Robertson (1869). Mr. K. has appeared as Pygmalion, Romeo, Charles Surface, Captain Absolute, and in A Dangerous Friend, Uncle's Will, London Assurance, The House of C silent pg 76), and in him at St.

Since 1908 retired from the stage, but Mrs. K. acted in the gala performance at His

Majesty's (1911). The Kendals, 1900. See Pemberton, Kendall, Henry Clarence (c. 1841-

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Mountains, 1880. See edition with memoir, 1886; Sladen, Australian Poets, 1788-1888, 1890; 'A Study of Kendall,' in Austral. Ballads (Canter-bury Poets, 1885-90); Contemp. Rev. lii.; Alhen., Sept. 9, 1882. See edition with

Kendrapara, a municipal tn. of Bengal, British India, in the dist. of and 35 m. E. of Cuttack. Pop. 18,000.

and 35 m. E. of Cuttack. Pop. 10,000.
Kenealy, Edward Vaughan Hyde
(1819-80), an Irish barrister and
author, called to the English bar in
1847. In 1873 he became leading counsel for Orton, the Tichborne claimant, and his unprofessional and violent conduct throughout the case was censured by the jury. Founding The Englishman (1874), K. still up-held Orton's claim, and after libellous attacks on Cockburn and after libelious attacks on Cockourn and others, was disbenched by Gray's Inn. He wrote: Brallaghan . . ., 1845; Goethe, a New Panlomime, 1850; Poems, 1864 (collected 1875-79); Proceedings of the Tichborne Case. See Memoirs by A. Kenealy, 1908.

Keneh, the cap. of the prov. of Keneh, Egypt, situated near the r. b. of the Nile. It is engaged in the manuf. of pottery, and is a centre for pilgrims. Pop. about 27,500.

Kenfig, a vil. in the co. of Glamorganshire, Wales, 12 m. S.E. of Swansea. During the 16th century it was always to the control of the control of the control of the control of the century it.

Swansea. During the 16th century it was almost totally buried beneath sand, owing to the inundation of the sea. Pop. (1911) 392.

Kenia, Mount, an extinct volcano of British E. Africa, situated between 10° and 12° S. of the equator. It has two peaks (17,200 ft. and 17,160 ft.) covered with perpetual snow.

Kenilworth: 1. A par, and market tn. of Warwickshire, England, 5 m. N. of Warwick. The castle, now in rulns, dates from the time of Henry I. It sustained several sieges, and was finally taken by Cromwell and destroyed. There are also remains of an stroyed. There are also remains of an Augustinian priory (c. 1122). The tanning industry is extensively carried on. Pop. (1911) 5776. See Scott's Kenilvorth; Beck, Kenilvorth Castle, 1840. 2. A suburb of Cape Town, Cape of Good Hope, S. Africa. 3. A model vil. of Kimberley, Care of Good Hope, S. Cape of Good Hope, for the workmen

Kenmare River or Bay, an inlet of the Atlantic Ocean off the coast of Kerry, Ireland.

Kennobec, a river of Maine, U.S.A.,
Kennobec, a river of Maine, U.S.A.,

rising in Mooschead Lake and flowing S. into the Atlantic Ocean. It is about 150 m. long, and during its course it drops 1000 ft.

Kennedy, Benjamin Hall (1804-89), an English schoolmaster, noted for his extensive and thorough scholarship, fellow and classical lecturer of St. John's, Cambridge (1828). He was assistant-master at Harrow vas assistant-master at Harrow (1830-36), and headmaster of Shrewsbury (1836-66). In 1867 he became regius professor of Greek at Cambridge and Canon of Ely, K. helped to establish Girton and Newnham colleges. His works include: Contributions to Sabrina Corolla, 1850; Public School Latin Grammar, 1871;

edition of Virgil, 1876-81; editions of Aristophanes Birds (1874), Birds (1874), 78), and (1882); Latin

My Old See

Classical Review, May to June 1889. Kennedy, James (c. 1406-66), Bishop of St. Andrews, and previously Bishop of Dunkeld, in which capacity he attended the Council of Florence. He took a prominent part in the politics of Scotland during the minority of James II., and afterwards acted as regent during the minority of James III. He was the founder of St. Salvator & College (1450).

Kennet, a river of England, rising in the Wiltshire Downs. It at first pursues a southerly course and then flows E., past Marlborough and Hungerford, to Newbury, eventually joining the Thames at Reading. Its length is 44 m.

Kenneth I., called MacAlpin (d. c. 850), a Scottish king of the 9th century, son of Alpin of Dalriada (d. 832-34). He drove out the Danes (841) and conquered the Plets (c. 846), becoming Ard-Righ, or ruler of the united moneyar Scott ruler of the united monarchy. Scone became the capital and Dunkeld the

Cape of Good Hope, for the workmen of the De Beers Company. Pop. about 1500. 4. A post vil. of Wellington co... He invaded Northumbria many Ontario, Canada, 70 m. W.N.W. of Toronto, Pop. 1600.

Kenites, a tribe of people who inhabited the S. of Palestine, frequently mentioned in the Bible. They seem to have been included in the term Middianties.

Kenmare, a tn. in the co. of Kerry, Ireland, 14 m. S.W. of Killarney, visited chiefly for its bathing.

Pop. (1911) 1111.

English prelate and author, opposed in the manufacture of waggons, carto the High Church party. He became dean of Peterborough (1708), and dean of Peterborough (1708), and bishop (1718-28). Among his works are: Parochial Antiquities, 1695 (new ed., 1818); A Register and Chronicle, Ecclesiastical and Civil..., 1728; vol. ili, of a Complete History of England (Charles I, to Anne), 1706. See Newton's Life, 1730; Biog. Britannica.

Kenney, James (1780-1849), an English dramatic writer, born in Ireland. He first attained popularity by his farce Raising the Wind (1803), produced at Covent Garden. He produced more than forty dramas and

duced more than forty dramas and operas, including: False Alarms, 1807; The World, 1808; Love, Law, and Physic, 1812; The Sicilian Vespers, 1840, a tragedy; and the most popular Sweethearts and Wives, produced at the Hyperachet in 1922. produced at the Haymarket in 1823, and revived several times.

Kennicott, Benjamin (1718-83), an English divine and eminent Hebrew Scholar. His dissertations On the Tree of Life in Paradise and On the Oblations of Cain and Abel early won for him his B.A. degree and election or nim nis B.A. degree and election as fellow of Exeter College, Oxford (c. 1747). He published The State of the Hebrew Text of the Old Testament Considered in 1753, unfolding his intention of labouring to improve the Hebrew MSS. K. met with opposition from Warburton. Horne and others from Warburton, Horne, and others, but gained the support of most of the out gained the support of most of the clergy. Aided by many learned English and Continental scholars, he produced the Vetus Teslamentum Hebratcum cum rariis Lectionibus (1776), for which over 600 Hebrew MSS. and 16 MSS. of the Samaritan Pentateuch were consulted. These latter he valued highly will a showing a diswere consulted. These latter he valued highly, while showing a disregard of the Massoretic tradition. De Rossi continued his work in Variæ Lectiones Veteria Testamenti (1784-87), and Jahn published an excellent abridgement (1806). K. was appointed Radcliffe librarian (1767) and canon of Christ Church, Oxford (1770). See Nouvelle Biog. Générale. Kennington, a suburb of London.

Kennington, a suburb of London, Surrey, England, 1½ m. S.W. of London Bridge. It is represented in the House of Commons by one member. Here is the celebrated Kennington Oval, the county ground of the Surrey Cricket Club. Pop. (1911) 72,711.

Kenora (originally Rat Portage), a the of Ontario, Canada, situated on

the of ontario, Canada, situated on the Lake of the Woods, 122 m. E. of Winnipeg. The town possesses flour and saw mills, and there are gold mines in the neighbourhood. Pop. 5500.

Kenosha, the co. seat of Kenosha co., Wisconsin, U.S.A., situated on Lake Michigan. The city is engaged

riages, brass, and leather goods. Pop. (1910) 21,371.

Kenrick, William (c. 1725-79), a miscellaneous writer. In his Review of Dr. Johnson's new edition of Shakespeare he attacked the doctor and his book. Johnson said of K. to Goldsmith, 'Sir, he is one of the many who have made themselves public without making themselves known. The London Review was founded by him in 1775.

Kensal Green, an eccles, par. of London, England, 51 m. W.N.W. of Charing Cross. Here is the famous cemetery which was opened in 1838.

Kensington, a parl. and metronensington, a parl, and metropolitan bor, and parl, London, 4 m., W.S.W. of St. Paul's. Here are the beautiful Kensington Gardens, in which is Kensington Palace, birthplace of Queen Victoria. Part of this palace is now the London Museum. Pop. (1911) 172,402.

Kent (the garden of England)

Kent (the garden of England), a maritime county in the S.E. It includes the islands of Thanet and Sheppey, and sends eight representatives to parliament, in addition to seven borough members. K. is mostly in the diocese of Canterbury, whose archbishop is the Primate of England. Maidstone is the capital, and other important towns are Chatham, Hythe, Rochester, Gravesend, Dover, Deal, Ramsgate. Margate. Folkestone, Ramsgate, Margate. Woolwich and Sheerness contain arsenals and dockyards, Tunbridge Wells is a noted health resort, while Greenwich is famous for its Royal Observatory (1675) and other government buildings. Four of the Cinque Ports—Dover, Romney, Sandwich, and Hythe—belonged to K. Faversham is the centre of the fruit trade.
The N. Downs run from W. to E.
through the county, ending in 'the
white cliffs of Albion'—Dover, Folkestone, and Hythe. Off the E. coast
are the Goodwin Sands, between the N. and S. Foreland. Among the chief rivers of K. are the Thames, Medway, Stour, Darent, and Rother. Romney Marshes are in the S.E., and in the S. is the Weald, once densely wooded. Cereals and fruits are produced. and hops extensively cultivated. Cattle are reared and pastured. Oysters come from Whitstable and other parts. Manufactures include bricks, pottery, cement, paper, sacks, and gunpowder. There are many and gunpowder. There are many breweries, engineering works, and shipbuilding yards. K. has a number of interesting architectural remains. Pop. (1911) 1,019,870. See Hasted, Historical and Topographical Survey of Kent, 1886; Smith. Bibliotheca Cantiana, 1837; Jerrold, Kent, 1998. Kent, Edward Augustus, Duke of

(1767-1820), an English prince and Mungo), and is Glasgow's patron soldier, fourth son of George III. and saint. See Jocelyn's 'Vita Kentifather of Queen Victoria (1837-1901).

He served under Grey against the of Scotland, v., 1874; Skene, Cellic French in the W. Indies (1794), became lieutenant-general (1794), became lieutenant-general (1796), Duke of Kent and Strathern and Earl of Tublial 1991; Beveridge, Culvoss and University of Tublia (1799), and commander-ingular and Commander for the state of the sta Dublin (1799), and commander-in-chief in N. America. Fort Edward in Martinique and Prince Edward Is. were named after him. governor of Gibraltar (1802), but a mutiny followed his severe reforms. See *Life* by Neale, 1850.

Kent, James (1700-76), an English

organist and composer, a chorister of the Chapel Royal, London, under Dr. Croft. He was organist of Finedon parish church (1717), of Trinity Col-lege, Cambridge (1731), and of Win-chester Cathedral (1737), resigning in 1774. He helped Dr. Boyce to compile Cathedral Music, and published a

work containing twelve anthems. See Burney, Hist. of Music. Kent, James (1763-1847), an Ameri-can jurist, graduated at Yale in 1781. He lectured on law at Columbia College (1793-96, 1823-47), became Judge of the Supreme Court of New York (1798), Chief Justice (1804), and Chancellor (1814-23). His great work is Commentaries on American Law, 1896-20. He also wroth Districtions 1826-30. He also wrote Dissertations, 1795, and A Course of English Reading, 1831. See Reports of Johnson and Caines; Story, On the Conflict of Laws, 1834; Duer's Life; Memoirs by his son, 1898; Nat. Port. Gall. of Wistiansiched Americans, vol. ii

Distinguished Americans, vol. ii. Kent, William Charles Mark (1823-Kent, William Charles Mark (1823-1902), an English poet, biographer, and miscellaneous writer. He edited the Sun (1845-70) and the Weekly Register (1874-81). He wrote under the pseudonym Mark Rochester, among his works being Aletheia, 1850; Foems, 1870; Mythological Dictionary, 1870; Corona Catholica, 1880; Seven Modern Wonders of the World, 1890. K. also issued critiques, editions, or memoirsof Burns (1874), Lamb (1875, 1893), Father Prout (1881), Lytton (1875, 1883, 1898), Dickens (1872, 1884), and others.

Kentel, or Kentai, a range of mountains in the N.E. of Mongolia, and one of the ranges of the great central plateau of Asia. In this range of

form of applause at public dinners, or political meetings, produced by clapping the hands in unison in a certain rhythm ('-'-). The effect is sometimes heightened by stamping, and a cry of 'rah at intervals. It may mark approval or serve as an interruption. It probably originated in the Kentish meetings protesting against Roman Catholic emancipation (1828-29), and has since been constantly used at

Protestant, Conservative, or Orange meetings, especially in N. Ireland.

Kentish Knock, Battle of the, 15 m.

N.E. of the North Foreland. Here Admiral Robert Blake defeated the Dutch in a naval battle in the Channel, under De Witt and De Ruyter, on Sept. 28, 1652. See Pol-tical History of England, vii., 1907.

Kentish Rag, the local name ap-plied to the limestone occurring at Hythe and other places on the Kentish coast, in the Lower Greensand measures. It is a greyish blue, and contains tossil sponges.

Kentish Town, a suburb of London, m. N.N.W. of St. Paul's.

Kent's Cavern, or Kent's Hole, cave in a small wooded limestone hill near Torquay, Devonshire. It has yielded the bones of extinct or no longer indigenous animals, intermingled with implements of stone and bone. The general character and structure of the deposits point to a prolonged period having been required for their accumulation. See Munro's Prehistoric Problems, 1897; and W. Pengelley's address to the British Association, 1883.

Kenturky, a S. central state of the cave in a small wooded limestone hill

Kentucky, a S. central state of the American Union in the Mississippi valley. It has an area of 40,181 sq. m., vaney. It has an area of 40,181 sq. m., and its greatest length is 400 m., breadth 175 m. In the E. and S.E. it is very mountainous, being traversed by ranges of the Alleghany system; but westward is the bluegrass' region, a beautiful and fertile tract noted for its stock-breeding and graying capathy. It is desired mountains is that one which is supposed, according to tradition, to contain the tomb of Jenghiz Khan.

Kentigern (or Mungo), Saint (c. 518-603 A.D.), of Culross, Perthshire, reared in St. Serf's (Servanus) monastery. The 'Apostle of the Strathclyde Britons,' he became bishop of Glasgow about 543. Driven from Scotland by Morken, he took refuge in Wales, founding St. Asaph's. He founded Glasgow Cathedral (St. the central belt. The climate is 275 Ker

healthy, and, on the whole, temperate. K. is divided into 119 counties. The

chief cities are Frankfort, Louisville, and Newport. Pop. (1910) 2,289,905. Kentucky River, formed by three forks, rising in the Cumberland Mts., and entering the Ohio, after a north-westerly course of about 250 m. Steamboats ascend it to Frankfort, the capital of the state. It runs

through a deep chasm of limestone through part of its course.

Kentville, a tn. of Nova Scotia, Canada, in King's co.. 55 m. N.W. by N. of Halifax. Pop. 2500.

Kenwyn, a par. of S.W. Cornwall, England, † m. N.W. of Truro. Tin is mined, and there are smalting works. mined, and there are smelting works. Pop. (1911) 8395.

Kenyon, a tn. of Ontario, Canada

in Glengarry co., 55 m. S.W. of Montreal. Pop. 5400. Kenyon, John (1784-1856), an English noet and philaptheonist. lish poet and philanthropist, born in Jamaica. He became a friend of Coleridge, Southey, Lamb, the Brownings, and other literary men of the day. His poems include: A Rhymed Plea for Tolerance, 1833; Poems. Occasional, 1838; A Day at Tivoli, 1849, but he is better known for his charity.

See Sharp's Life of Browning; Horne, Letters of E. B. Browning; Sandford, T. Poole and his friends, ii.; Temple Bar, April 1890, Jan. 1892, Kenyon, Lloyd, Lord (1732-1802), a British lawyer, Lord Chief Justice of England (1788-1802) He won fame by his defence of Lord Geogree Gordon. by his defence of Lord George Gordon, who was on trial for treason over the outbreak opposing toleration of Roman Catholics (1779). K. became Attorney-General in 1782, and re-ceived the title Lord K., Baron Gred-direton (1782). See Campbell Lives dington (1788). See Campbell, Lives of the Chief Justices; Lives of the Lord Chancellors, v.; Life by G. T. Kenyon, 1873; Sketch of the Life . of Lord Kenyon, 1802; Foss, Judges of England

Keckuk, a city of U.S.A., in Lee co., Iowa, on the Mississippi, about 205 m above St. Louis. Has an elevation of 480 ft. Manufs. motor-cars, furniture, electrical supplies, tobacco, soap,

kepler, Johann (1571-1630), a German astronomer, born near Weil in November. He was a seven months' child, and his parents, though of noble descent. noble descent, were in reduced cir-cumstances. At six he was sent to school in Elmendingen, where his father had become an innkeeper, and in 1586 was admitted into the monastic school of Maulbronn, where the cost of his education was defrayed by the Duke of Würtemberg. From there he passed to the college at Tübingen, and while there (1594) the astronomi-

cal lectureship of Grätz was offered him, and he was forced to accept it, although we have his own assurance that at that period he had given no particular attention to astronomy. In 1597 K. married, and in 1600 he went to assist the great astronomer, Tycho Brahé (q.v.), and on the latter's death in October of the next year he succeeded him as principal mathematician to the emperor. K.'s life was one long struggle against poverty, and his death was due to a fever largely brought on by the fatigue and yexation of a fruitless journey to obtain a liquidation of his claims upon the imperial treasury. K.'s great claim to immortality lies in his discovery of the three celebrated laws of planetary These motion which bear his name. laws, though not proved till Newton's Principia appeared many years later, revolutionised astronomical calculations and won for their discoverer the undisputed title of being one of the four great men who laid the foundations of modern astronomy. For an account of K.'s laws, see ASTRONOMY and GRAVITATION.

Keppel, a tn. of Ontario, Canada, in Grey co., on Owen Sound. Pop. 3800.

Keppel, Augustus, Viscount (1725-S6), an English admiral, was the son of the second Earl of Albemarle. After having entered the navy he was successful in many expeditions, among them the capture of Havana in 1762. In 1778, owing to Sir Hugh In 1702. In 1770, owing to Sir Halin Palliser, who was in command with K., the French flect were allowed to escape off Ushant. At the court-martial, however, K. was acquitted. In 1782 he was made First Lord of the International Proceedings of the Particle Part of the Proceedings of the Particle Particle Particles of Proceedings of the Particle Particles of Particles

Admiralty, and created a viscount.
Keppel, Sir Henry (1809-1904), an
English admiral and writer, was a
son of the fourth Earl of Albemarle. After service in other places he was instrumental in putting down piracy off the shores of China, and in the Pacific about the middle of the 19th He was in command of the naval brigade at Sebastopol, and in 1857 was successful against In 1869 he Chinese in Fatshan Bay. was made a full admiral; G.C.B. in was made a 1011 admiral; G.C.B. In 1871, and in 1877 admiral of the fleet. He wrote: Visito the Indian Archipelago, 1853; A Sailor's Life under Four Sovereigns, 1899.

Ker, Family of, the surname of two noble families of Anglo-Norman extraction, said to have been living in Scotland at the end of the 12th century. They settled in Roxburghshire, and derived their descent from the families of Fernihirst and Cessford. In 1357 John E. of Altonburn gave origin in his three sons to the families of Linton, Cessford, and Gateshaw, and in a grandson to that of Fernihirst

present chief male representative of this family. Sir Walter K., son of Sir Andrew K. of Cessford, was created Earl of Roxburghe in 1616. The grandson of the second Earl of Roxburghe, viz. the fifth earl, was created Duke in 1707, and the present Duke of Roxburghe is the chief male representative of the family of Cess-

Kor, John (1819-86), a Scottish Presbyterian minister, preacher at East Campbell Street Church, Glasgow, from 1851. He was professor of practical training in the United Presbyterian Hall from 1876. K. wrote Sermons (two series), 1868 and 1886; The Psalms in Hist. and Biog., 1886; Lectures on the Hist. of Preaching, 1888 Letters, 1866-85 (1890). See Memorial Discourses, 1886; Christian Leader, Oct. 28 and Nov. 18, 1886; Scotsman, Oct. 6 and 11, 1886.
Kerala, one of the ancient Dravidian kingdoms, Southern India. It is almost identical with the present district of Malabar.

district of Malabar.

Kerang, a tn. of Victoria, Australia, in the co. of Gunbower, 170 m. N.N.W. of Melbourne. Pop. 1400. Kerason, Kerason, Kerason, Kerasund, or Kerasunt, a seaport of Asia Minor, 70 m. W. of Trebizond on the Black Sea. Here the wild cherry (L. cerasus) grows in profusion, and it was from K., then called Cerasus, that it was taken into Italy by Lucullus. Pop. about 10,000.

Kerbela, a sacred tn. of Asiatic Turkey, about 60 m. S.W. of Bagdad, connected with the Euphrates by a Here is the tomb of Hussein. son of All, and the goal of numbers of pilgrims. The people are engaged in making sacred bricks, and the chief exports are cereals and dates. Pop.

65,000. Kerch, or Kertch (the ancient Panticapæum), a fortified seaport of the Crimea, Russia, situated in the gov. of Taurida, 60 m. E.N.E. of Theodosia, on the Kerch or Yenikale Strait, connecting the Sea of Azov with the Black The town is of interest from an Sea. archæological point of view. The products include leather, tobacco, cement, lime, beer, and soap; there are saw and flour mills, and in 1895 a rich vein of iron ore was discovered. During the Crimean War (1855) K. was levelled to the ground by the allies.

Kerguelen Land, \mathbf{or} Desolation Island, an island in the Indian Ocean; Cape Challenger, its S. extremity, is in 49° 46' S. lat., and 70° 5' E. long. It is very irregular in shape, and has a long coast-line; its length is 85 m. The island is volcanic in character, mountainous, and with many glaciers. Fur seals, sea-leopards, and sea-

-the Marquis of Lothian being the elephants, together with skuas, gulls, albatrosses, terns, cormorants, capepigeons, and a variety of insects are found. A characteristic feature of the vegetation is the Kerguelen cabbage (Pringlea antiscorbutica), a member of the order Crucifere and a preven-tive of scurvy. The island was dis-covered by Kerguelen Trémarec in 1772, and annexed by France in 1893.

Area 1480 sq. m. Keriya, or Kiria, a tn. in Chinese Turkestan, situated 95 m. E. by S. of Khotan, and standing at a height of

4500 ft. Pop. 13,000.

Kerki, a fortified tn. in Bokhara, Central Asia. It stands on the Amu-Darya, 115 m. S. of Bokhara. fortress, which is protected by a high wall, was strengthened by the Russians in 1885 and garrisoned by Pop. 5000. them.

Kerkrade, a com. of the Netherlands in the prov. of Limburg, 13 m. M.E. of Maastricht, near the Prussian border, with coal mines. Pop. 15,666.

Kerkuk, a tn. in the vilayet of Mosal, Asiatic Turkey, 145 m. N. of Bagdad. There is trade in naphtha, and petroleum. Pop. 30,000. Kerll, Johann Kaspar (c. 1625 or 27-

1693), a Saxon organist and composer of several important masses and organ works which foreshadow J. S. Bach's style, also of many harpsichord and vocal pieces. His life was spent chiefly at Munich (1656-73) and Vienna (1674-83).

Kermadec Islands, a group of volcanic islands of the Pacific Ocean, about lat. 30° S., and long. 179° W., one of the chief being Sunday Is. They belong to New Zealand. Area

about 13 sq. m.

about 13 sq. m.
Kerman, or Kirman: 1. A prov.
in the S.E. of Persia, joining Baluchistan, and having an area of about
00,000 sq. m. Most of the surface is
extremely barren, the N. and N.E.
being occupied by the desert of
Kerman. The inhabitants are chiefly engaged in shawl-making. Pop, about 600,000. 2. The cap, of the prov. of the same name, stands at an elevation of over 5000 ft. Exports include carpets, silk, and dates. Pop. about 70,000.

Kermanshah, or Kirmanshahah, the cap. of the prov. of Ardelan, Persia, 275 m. W.S. W. of Teheran, and standing at the junction of the caravan routes from Bagdad, Teheran, and Ispahan. It exports carpets, wines, and opium. Pop. 60,000.

Kernahan, Coulson, an English author, born at Hiracombe, and edu-cated privately by his father, Dr. J. Kernahan, F.C. S., and at St. Albans. He collaborated with Mr. F. Locher-

Lampson in editing the work of Lyra Elegantiarum, and was until 1905

literary advisor to Messrs. Ward, which is twilled, and has a smooth literary advisor to Messrs. Ward, Lock & Co. His works include: A Dead Man's Diary, 1890; A Book of Strange Sins, 1899; God and the Ant, 1895; The Red Peril; Dreams, Dead Earnest and Half Jest; Captain Shannon; Scoundrels and Co., 1901.

Kerner, Justinus Andreas Christian (1786-1862), a German poet and medical writer, born at Ludwigsburg in Wirtembore, and educated at the

in Würtemberg, and educated at the classical schools of Ludwigsburg and Maulboun, and the University of over 500 m.

Tübingen. He took his doctor's degree in 1808, and practised in Wildbad. In 1815 he was made medical officer of Guildorf, and where he spent t

works include: Schattenspieler Luchs, 1811; Deutscher Dichterwald, 1813; Der letzte Blütenstrauss, 1852; Winterblüten, 1859, etc.

strauss, 1852; Winterblitten, 1859, etc. Kerosene (Gk. κηρός, Wax), a colourless mixture of liquid hydrocarbons distilled from petroleum, coal, etc., and used for lighting purposes. The specific gravity varies from '780 to '825, the boiling point is about 170° F., and fiash point 149° F. It is called also mineral oil and phofe. It is called also mineral oil and photozen, and in England 'American paraffin oil.'

Kerry, a maritime co. of Munster, S.W. Ireland. The coast-line is deeply indented with bays and harbours, such as Tralce, Dingle, Kenmare, and Bantry. The surface is very mountainous, containing the Macgillicuddy Recks (highest range in Ireland) with Carrantuol (3410 ft.), Brandon and Mangerton, Sileve Mish and Caha Mts. The famous Killarnoy Lakes are in this county. The rivers are short and of little importance. Among the islands off the coast are the Skelligs. Blaskets, and Valentia, where slates and flagstones are quarried. The chief towns are Tralee (capital), Kil-larney, Kenmare, and Dingle. Oat-and butter are exported, and potatogrowing and fisheries are extensive. Four members are returned to parliament. Rebellions in Elizabeth's reign destroyed much of the county's former prosperity. Pop. (1911) 159,268.

Kersaint, Armand Gui Simon de Coetnempren (1742-93), a French sailor and politician, born at Paris. He entered the navy in 1755 and by 1782 was promoted to captain for his distinguished services in action.

face, soft nap, and diagonally ribbed appearance. It probably derives its name from Kersey in Suffolk, England.

Kertch, see KERCH. Kerulen, a river of Northern Mon-golia, one of the head-streams of the Amur, which rises in the Kentel Mts., near Urgo, flows in a northeasterly direction, and finally enters Lake Dalai-nor, after a course of

shub Chunder Sen, or Keshara Chandra Sena (1838-84), an Indian religious reformer, born in Calcutta of a high caste family, and educated at one of the colleges there. In 1857 he joined the Brahma Samaj, of which he shortly became the leader. In 1870 he visited England, and was warmly welcomed, especially by the Unitarians. He was not very favourably impressed by English religious activity and earnestness, and said that he returned to India as he came to England, 'an Indian and a Theist. For an account of his doctrine and work see Brahma Samaj and Arya SAMAJ.

Kesmark, an ancient tn. in the co. of Zips, Hungary, situated at the base of the Central Carpathians.

Pop. 5000

Kessel-Loo, a com. of Belgium in the prov. of Brabant, 14 m. E. of Louvain. Pop. 7500. Kessels, Matthew (1784-1836), a

Kessels, Matthew (1784-1836), a Dutch sculptor, born at Maestricht, and studied in Paris, under Girodet, and at Rome, where he reproduced the two famous medallions of 'Dawn' and 'Nicht,' and won a prizo in open competition with his statue 'St. Sebastian plerced by Arrows.' His masterpiece was the 'Mausoleum' for the Comtesse de Selles at Rome.

Kessingland, a par. and vil. of Suffolk, England, 41 m. S.W. of Lowestoft. Pop. (1911) 1500.

Kesteven, Parts of, a div. of the co. of Lincolnshire, in the S.W. of the co. Pop. (1911) 111,332.

Kestrel, the popular name of Falco ls belongit is so plaintive

distinguished services in action. At the outbreak of the Revolution he the outbreak of the Revolution he threw himself whole-heartedly on the side of the revolutionaries, and while to hover, being sometimes given, owing side of the revolutionaries, and while to its habit of suspending itself in mid-air before swooping on its proyet to carry out a scheme for the reorganisation of the navy. He, however, opposed the execution of the ever, opposed the execution of the king, and was executed in 1793.

Kersey, a kind of woollen cloth

plumage of a reddish tinge, with head to the carbonyl (CO) group. The and neck of ashy grey; the female has simplest ketone is acctone, or diand neck of ashy grey; the female has dark spots or streaks with indistinct bars on the tail. It rarely builds its own nest, but uses those of crows, pies, etc., or scrapes a hole on some It is found all over cliff-ledge. Europe and N. Asia, and migrates in the winter to China, India, and N.E. Africa. F. cenchris, the lesser K., is an inhabitant of S. and S.E. Europe.

Keswick, a tn. in co. Cumberland, England, 24 m. S.W. of Carlisle. Owing to its position on Lake Derwentwater and at the foot of Skiddaw it is a favourite place for visitors, while among its interesting features is the parish church of Crosthwaite. K. was also the home of Southey. Its principal industry is the manuf. of lead pencils. Pop. (1911) 4403. Keszthely, a tn. in the co. of Zala,

Hungary, near the western end of marble and

Lake Balaton, with man basalt quarries. Pop. 6600.

basalt quarries. Pop. 6600. Ketch (from Turkish qáiq, a boat; Dutch kits and Fr. carche), a strongly built, two-masted vessel of 100 to 150 tons burden. The peculiarity of the rig formerly afforded ample space, and they were much used as bomb-vessels. masts are the main and the mizzen, and the sails are mostly fore and aft. Ks. were formerly much used as yachts.

Ketch, Jack (d. 1686), was appointed public executioner about 1663, and for two centuries his name was used as a nickname for the holder of his office. This was probably due to his bungling execution of Lord Russell in 1683, for which he published an 'apologie.'

Ketchup, a name of a sauce which is used as a flavouring. It is usually made from mushrooms or walnuts,

which are spiced and salted.

Ketel, Cornelis (c. 1548-c. 1616), a Dutch painter, sculptor, and poet, born at Gouda, studied under Blocklandt (Montfoort) at Delft. He went to Paris and painted in the palace at Fontainbleau. In 1573 he came to London and painted portraits; Queen Elizabeth, the Earls of Arundel, Pembroke, Oxford, Lincoln (in the National Portrait Gallery, London), Sir Christopher Hatton, besides other notable people, sat to him. K. re-turned to Holland in 1581. He did some of his painting with his fingers without the aid of brushes.

Keti, a scaport on the delta of the Indus, district of Karachi, Sind, British India. It is an important trading centre for sea and river traffic.

methyl ketone, CH, CO, CH; ; phenyl methyl ketone or acctophenone (used as a soporific under the name of hypnone) is CaHs.CO.CHs, and so Ks. are prepared by oxidising secondary alcohols or by heating the calcium salt of a fatty acid; they are stable substances which form crystalline addition products with acid sulphites and condensation products with phenylhydrazine and hydroxylamine. On reduction they yield secondary alcohols, and on oxidation

a mixture of acids

Ketteler, Wilhelm Emanuel, Baron
von (1811-77), a German theologiau
and politician, born at Harbotten,
Bavaria. He was deputy to the
Frankfort National Assembly, where he attained recognition as an orator. He was ordained in 1844 and con-secrated Bishop of Mainz in 1850, when he began his famous struggle for the supremacy of the church in educational matters. He was later a fierce opponent of the German empire. He published Freiheit, Autoritat und Kirche (7th ed.), 1862, and several other works.

Kettering, a market tn. of North-amptonshire, England, 72 m. N.N.W. of London. Boots and shoes form its principal trade. There are also iron quarries in the district. Pop. (1911)

29,976.

Kettle-drum, see DRUM. Keunjhar, or Keunjur, a small native state of Orissa, Bengal, Indis. Its capital, Keunjhar, is the raja's seat, about 85 m. from Cuttack. Pop. of state. 286 000 of state, 286,000.

Keunthal, or Keonthal, a Punjab hill state of India, in the Punjab. Area about 120 sq. m. Pop. about

23,000.

Keuper (from a local miners' term), the German name for the third or upper division of the Triassic geo-logical system. In the German region K. is divided into three groups: the Rhætie, or upper (Hautkeuper or Gypskeuper), the middle, and the lower (Kohlenkeuper or Lettenkohle). The first is mainly composed of sandy The first is mainly composed of sandy dark grey shales and marls; the second, the thickest bed, of a marly series of grey and green marly grypsum, dolomite, and sandy shales below; the third, of grey dolomite with a bed of Lettenkohle, or inpute coal at the base. In Great Britain the beds are usually divided into Rhætic or Upper Keuper marl and Lower Keuper sandstone. K. is not rich in Keuper sandstone. K. is not rich in fossils.

Pop. 2127.

Kew: 1. A par. of Surrey, England, in the bor. of Richmond, on the R. pounds allied to the aldehydes, but Thames, 7 m. S.W. of London. A containing two alkyl groups united bridge connects K. with Brentford.

The church on the green, dating entered the navy in 1833. from 1713, contains the mausoleum of the first Duke and Duchess of Cambridge and Gainsborough's grave. In the 18th century Frederick, Prince of Wales, lived at Kew House. George III. purchased the property later, and Queen Charlotte died there (1818). The magnificent Royal Botanical Gardens, containing the most famous collection of plants in Europe, were founded in 1759 by George III.'s mother, and have since increased in extent from 11 to about 290 acres, now forming They chief feature of interest at K. were presented to the nation by Queen Victoria (1840), and have since been kept up at national expense, and are open daily free to the public. finely timbered grounds owe much of their fame to the care of Sir W. J. Hooker (1785-1865), and his son (b. 1817), who were both in turn directors of the Botanical Gardens (1841-85). The Temperate House (finished 1899) is one of the largest plant-houses in the world. There are numerous fine conservatories, palm-houses, ornathree and.

1goda (erected 1761) is about 163 ft. high. Chronometers and scientific instruments are tested at the Kew Observa-tory or op.

of of esi-(1911)the Cor Bourke .

dential suburb, 4 m. from Melbourne. Pop. about 10,000.

Kewance, a city of Henry inois, U.S.A., situated 130 Illinois, 130 W.S.W. of Chicago. Ιt manufs. bollers, pumps, etc. Pop. (1910) 9307.

Keweenaw, a co., Michigan, U.S.A. consisting of the northerly portion of Keweenaw Peninsula. It is very rich in copper. Pop. (1910) 7156.

Key, see LOCKS AND KEYS.

'iand-tool or any parts to for devi the first rord sense a spanner is a K., and in the second, the cotter between the hub and shaft of a wheel.

Key, in music, the term applied to a succession of tones in a scale considered with reference to their harmonic relations to one another, and to the chords which can be formed by them. The lowest tone in each scale is the tonic or keynote, and gives its name to the key, which may be either major or minor, according to the intervals. The term key is also applied to the levers by which the sounds of a new of a musical instrument are produced.

Key, Sir Astley Cooper (1821-88), an English admiral, born in London and Liskeard

He disentered the havy in 1800. He distinguished himself at the time of the Crimean War, and received a C.B. in 1855. In 1858 he was made a member of the Royal Commission on National Defence, and in 1863 superintendent of the Royal Naval College. He was accepted agreed with in 1866 and created rear-admiral in 1866, and vice-admiral and K.C.B. in 1873. Previously between 1869 and 1872 the posts of superintendent of mouth and of Malta dockyards, and of second in command of the Mediterranean, had been filled by him. the latter year he was made president of the Royal Naval College of Greenin 1878

Vaval Lord ·79-85, and G.C.B. in 1882.

Key, Francis Scott (1779-1843), an American poet, born in Maryland. His best-known work is *The Slarsspangled Banner*, 1813: he is buried at Frederick, Maryland, where there is a monument erected to him at the

entrance to the cemetery.

Key, Thomas Hewitt (1799-1875), an English classical scholar, educated at St. John's and Trinity Colleges, Cambridge. From 1825-27 he was professor of mathematics at the University of Virginia, and in 1828 professor at the University of London. In 1832 he was made joint headmaster of the school in connection with the university, and in 1842 sole headmaster. He introduced the crude form used by Sanskrit grammarians into the study of Latin.

Key-dwellers, the name formerly given by archæologists to a now extinct race. They lived in the numerous island reefs or 'keys' (Spanish cayo, barrier, reef) off the W. Indies and Spanish America, especially in the low islets or sandbanks off the S.W. coast of Florida, the chief being Cayo Largo and Cayo Hueso (Thompson's Is. or Key West), about 55 m. from Cape Sable. Wrecks are frequent near this group of coral islands. Key-dwellers, the name formerly quent near this group of coral islands. See Cushing's Report of the Pepper-Hearst Expedition (Philadelphia), 1897.

Keyham, situated on Keyham Lake is a part of Devonport, England, and has à large dockyard.

Key Islands, see KEI ISLANDS. Keymer, a par. and vil. of Sussex, England, S m. N. of Brighton. Pop. (1911) 4400.

Keyne, St., a virgin saint who lived about 485 first in Wales, and afterwards in Cornwall. She is supposed to have imparted certain power to the water in a spring there, that the first of a newly-married pair drinking it, shall be the ruler. The name still survives in a Cornish church near

smstoi. It has brass and dye works, and possesses the ruins of an abbey of the 12th century. Pop. 10,141. Key West, a port of entry, health resort, and co. seat of Monroe co., Florida, U.S.A., on Key West Island, the most westerly of the group of Florida Keys. Its harbour, which is an exceedingly fine one, is defended by Fort Taylor. by Fort Taylor. The people are engaged principally in the manufacture of cigars, and in sponge-fishing, but turtles, fish, fruit, and vegetables are also among the exports. Pop. (1910) 19,945.

Khabarovsk, a tn., and the cap. of the Maritime prov. of Siberia, at the iunction of the Amur and Ussuri. It vostock 470 m. S.W. Pop. 16,000.

Khafra, or Cephren, called by some

writers Saophis, a king of Egypt, and the builder of the second largest of the

three pyramids.

Khair-ed-din, Barbarossa (d. 1546), a Greek and a native of Mitylene. He, with his brother Horuk, both of them acting as Turkish pirates, ravaged the shores of the Mediterranean during

shores of the Alediterranean during the early part of the 16th century. He captured Tunis for the Turks.

Khairpur: 1. A native state in Upper Sindh, India, Area 6100 sq. m. Pop. 200,000. 2. The cap, of the above state, situated near the Indus. Pop. about 14,000.

Khairpur: Aleditaria Alediterranean during the capture of the state in the state of the state. The cap of the short of the state o

Khalat-i-Ghilzai, a fort in Afghanistan, situated on an isolated height 5543 ft. above sea-level. It lies 87 m. N.E. of Kandahar.

Khaled, or Caled (582-642), one of Mohammed's greatest generals, born at Emesa. He was known among the Arabs as 'The Sword of God,' and hesitated at no cruelty in order to advance the religion of his master. K. slaughtered the garrison Damascus after granting them their

liberty.

Khalfa, Haji, or (in full) Mustafā a 'Abdallāh Kātib Chelebi Hajji Khalila (c. 1599-1658), an Arabic and Turkishauthor. He was with thearmy in Bagdad (1625), and present at the siege of Erzerum, returning to Con-stantinople in 1628; he made a pilgrimage from Aleppo to Mecca in 1633. H Ency. in

1835.58 Persian

historical works see Brocketmann, Gesch. d. arabischen Literatur, ii., 1902. Kham, a prov. situated in the E. of

Chiamdo is its chief town. Tibet. The upper course of the Yang-tsekiang traverses K.

Khama, the head of the N. African tribe of the Bamangwato, Bechuana-

Keynsham, a tn. in the co. of land. He appealed to England against Somerset, England, 5 m. S.E. of Boer encroachments, and in 1884 Bristol. It has brass and dye works, Britain took Bechuanaland under

Khamagaon, a tn. in the dist. of Akola, British India, 28 m. W. of Akola. Has a cotton and opium market. Pop. 15,500.

Khamsin (Arabic, fifty), a hot,

oppressive, southerly wind of Egypt, blowing at intervals during March, April, and May for about fifty days, lasting generally for three days or so. It fills the air with sand, and during its prevalence diseases native to the country are very virulent.

Khan, a Mongolian title of respect used in Mohammedan countries. It has the meaning of sovereign or emperor among the Mongol tribes.

emperor among the Mongoi tries.
Khandeish, or Candeish, two dists.
(E. and W.) in Deccan, Bombay,
India. K. is intersected by the Tapti
R. A great part of K. consists of a
fertile plain, but in the extreme Ex
there is a small, very unhealthy
tract. The chief town is Dhulia. tract. The cl Pop. 1,460,500.

Khandwa, a tn. in the Nimar dist., Central Provinces, India. It contains some ancient temples, and is the seat of the cotton trade. Pop. 19,401.

Khan-Tengri, a snow-capped peak of the Tian-Shan Range, Central Asia,

85 m. S.E. of the eastern shore of Lake Issik-kul. Height 24,000 ft. Kharbin, a tn. in Manchuria, on the R. Sungari, 370 m. W. of Vladivos-tock. Itisan important railway centre. the Trans-Siberian Railway dividing here, one branch going to Port Arthur and the other to Vladivostock. K. was built in 1898. It has many industrial establishments, including flour mills, distilleries, brick works, etc., and is the centre of a rich agricultural grazing district. It also has large mineral fields which, as also has large mineral fields which, as yet, have not been very much developed. During the Russo-Japanese War K. was the hospital centre and chief reserve depôt of the Russian army. Pop. about 110,000 (Europeans and Chinese).

Kharga, called the Great Oasis Fernilles in the Librar desert.

Kharga, called the Great Oasis of Egypt, lies in the Libyan desert, and belongs to the Mudiria of Assiut-It is 100 m. long and 12 to 50 m. broad, having an area of about 1200 sq. m. There is little or no rain, but many wells, some of great anti-quity. The chief trees found are the date palm, tamarisk, and accacia, and rice and wheat are grown. The inhabitants, who are of Berber stock, are chiefly engaged in basket work. A railway joins K. with the Nile valley. Pop. 8348. See Beadnell's An Exercisis (Arc.)

Egyptian Oasis, 1909. Kharkoff, or Kharkov, a gov. of Little Russia, and comprises eleven

Pop. 3,245,900. K., the cap. of the above gov., is the archiepiscopal see of the Orthodox Greek Church. has an important university, and holds four annual fairs. Pop. 221,193. Kharput, a tn. in Kurdistan, Asia Minor. Pop. (estimated) 30,000.

Khartoum, or Khartum, a prov. and chief tn. of Anglo-Egyptian Sudan, Africa, on the Blue Nile (Bahr-el-Azrek) near its junction with the White Nile (Bahr-el-Abiad). It was founded about 1820 by Mohammed Ali, and is strengthened by walls and It has fine European governmont buildings, quays, mosques, barracks, and a street railway. There are railway connections with Lower Egypt and with Upper Egypt and Port Suakin on the Red Sea. Ivory, ostrich feathers, gum, and fruit are exported; grain and textiles are among the imports. A bridge conmeets the town with its suburb Khartoum North or Halfaya. K. was formerly a depôt for slayes sent rom Sudan and Abyssinia into of S.W. Russia, bordering on the N. Egypt. It fell into the hands of the Mahdi in 1885, and Gordon, after by the Dniester (its western boundis gallant defence the subsequent Dervishes under Mahdi's evenessor.

Mahdi's successor; city and made Omdurman under Anglo-Egyptian troops by Kitchener. Much of its former trade and prosperity has now been restored. Pop. (including suburbs) 70,000. See Stevens, With Kitchener to Khartum (7th ed.), 1898. Khasi Hills, The, form, with the Jaintia Hills, a district of Assam.

India. See JAINTIA HILLS.

Khasis, an Indo-Chinese race in-habiting the Khasi Hills, Assam, India. Their language is monosyllabic and they are a primitive race. Consult P. R. T. Gurdon, The Khasis,

1907.

Khaskoi, the cap. of the dept. of that name in Roumelia, Bulgaria, 45 m. from Philippopolis. It has considerable trade in tobacco, silks, carpets, and woollen goods. Pop. 15,000.

Khatanga, a river of Eastern Siberia, flowing from a lake in the gov. of Yeniseisk into the Bay of

districts. Area 21,041 sq. m. It occu- Baghmati and Vishnumati Rivers. Pop. about 50,000.

Khayyam, Omar. See OMAR

Кначчам. The, were an ancient Khazars.

escended from of Japhet.

spurs of the Caucasus and the shores along the Caspian Sea. Itel was their chief city and formed the centre of trade with Persia, Byzantium, Russia, and

other countries.

Khedive, or Khidiv, a Persian title (prince or sovereign), granted by the Turkish sultan to his vicercy in Egypt in 1867, instead of the former title 'Vali' (viceroy). It was thenceforward adopted as the official title of the Pashas of Egypt, and sometimes used by independent provincial governors in Persia. Religious supremacy only was acknowledged in Religious the sultans and shahs. Since the settling of the British in Egypt, the K.'s power has decreased.

Khelat, Kelat, or Kalat, the cap. of Baluchistan, situated on the summit of a high hill (6600 ft.). It is a walled and fortified town, and the residence of the khan. Pop. about

14,000.

Kherson, or Cherson: 1. A gov.

are agriculture and cattle-

city and made Omdurman their rearing. There are large crops of headquarters. Not until 1898 were wheat, barley, etc., and tobacco, they defeated and K. recaptured hemp, flax, and maize are also grown. Fishing is an important occupation of the inhabitants, and there are manufs. of leather, wool, carriages, chemicals, sugar, etc. Area 27,337 sq. m. Pop. 3,447,100. 2. The cap. of the above, on the r. b. of the Dnieper, was founded in 1778 by Catherine II. as a seaport and naval station. There is an active river traffic, and the chief is an active river traine, and the chief industries are brandy-distilling, wool-cleansing, soap-boiling, and the manuf. of tobacco. In the cathedral is buried the courtier Potemkin. Pop. 67,237. 3. The ruins of a city of this name remain near the southern extremity of Crimea, Russia. It was founded by the Greeks in the 6th century.

Khien-Loung, Emperor of China,

see Kien-Loong.

Khiva, Khivarezm, or Kharezm, a khanate of Russian Central Asia, Siberia, flowing from a lake in the gov. of Yeniseisk into the Bay of Khatanga, Arctic Ocean. (estimated) 700 m. (hatmandu, the cap. of Khatmandu, the cap. of Khatmandu, the cap. of Khatmandu, the cap. of Khatmandu, the cap. of Kepal. (is watered by numerous irrigating India, near the confluence of the canals from the R. Amu, and forms an oasis with an area of 5210 sq. m.) an oasis with an area of 5210 sq. m. Here are grown millet, rice, wheat, barley, oats, peas, flax, hemp, and a great variety of fruits, including the vine and a large quantity of melons. Sheep, cattle, horses, and camels are reared. The principal trade is done with Russia and Bokhara. present khanate is but a relic of a mighty kingdom which once held great possessions; the ruler is now practically subject to Russia. Chief towns, Khiva, Urgenz, Hazarasp, and Kungrad. Pop. 800,000.

Khiva, the cap. of the above, a tn. situated 240 m. W.N.W. of Bokhara, having twenty mosques and four large madrasas (Mohammedan col-

leges). The manufs, include carpets, silks, and cotton. Pop. 5000. Khnopff, Fernand Edmond Jean Marie (b. 1858), a Belgian painter, born at Grembergen, Termonde. He studied under X. Mellery, and has been much influenced by the English pre-Raphaelite school, notably by Rossetti and Burne-Jones. His work is distinguished by a certain curious mystic note, as found in the enigmatic Silence '(1890), and 'Sibyl' (1894). It is individualistic, and the colouring is fresh and delicate. His best-knownworks are: 'The Small Sphinx,' 'Memories,' and 'I Lock My Door upon Myself.' See the study by Dumont-Wilden (Brussels, 1907).

Khoi, a tn. in the prov. of Azerbijan, Persia, 75 m. N.W. of Tabriz. Here the Persians were defeated by the Turks under Sclim I. in 1514. The chief industry is agriculture; fruit,

grain, and cotton are especially cultivated. Pop. 25,000. Khojend, or Khojent, a walled tn. in the prov. of Syr-darya, Russian Turkestan, 75 m. S.W. of Khokand. The town belonged alternatively to the emirs of Khokand and Bokhara, and was besieged by the Russians in There are manufs. of silk, and china ware. The incotton, and china ware. habitants, who are mostly Tajiks, number about 32,000.

Khokand, a tn. of Asiatic Russia, cap. of Fergana, 350 m. E.N.E. of Bokhara. The former palace of the Khan has been converted into the governor's residence. The tn. has a busy market and exports silk.

84,000.

Kholm (Polish Chelm), a tn. in the Lublin gov., Russian Poland, 45 m. E. of Lublin. It has an old castle and a fine cathedral. Pop. about 20,000.

Khonds, or Kus, a Dravidian people who inhabit the Central Provinces of India. They used formerly to offer human beings as sacrifices. They They must not be confused with the Gonds.

prov. of Irak-Ajemi, Persia, 83 m. W.N.W. of Ispahan. Pop. 12,000. Khorassan (land of the sun), a north-easterly prov. of Persia, to the W. of Afghanistan. Area about 200,000 sq. m. It is traversed by spurs of the Elburz Mts. The chief products of the soil are tobacco. opium, cotton, and fruits. carpets, swords, and silk are manufactured, and there are turquoise mines at Nishapur. Cap., Meshed. mines at Nishapur. Cap., Meshed. The pop.. made up chiefly of Iranians and Arabs, is estimated at 1,000,000. Khorsabad, a vil. of Asiatic Turkey,

13 m. N.E. of Mosul. The first discovery of the antiquities of Nineveh was made here by Paul Botta in 1843.

Khosru I., II., see Chosnoes I., II. Khotan (locally fichi), the name of a tn. and oasis of Eastern Turkestan. The oasis lies between the northern extremity of the Kuenlun and the edge of the Takla Makan Desert; there are two small towns therein, Kara Kash and Yurin Kash, and 300 villages. Cereals, rice, flax, hemp, tobacco, opium, and cotton are produced, and a trade is carried on with India and China, The town of K., formerly of great importance, lies about 180 m. S.E. of Yarkand, and is composed of narrow, dirty, winding streets, with open squares at intervals. Sven Hedin discovered the ruins of ancient cities in the Khotan Jade or nephrite for fancy dist. Jade or nephrite for fancy articles, etc., has long been a famous production; in addition carpets, silk, and felt, silk goods, and hides are manufactured. Area of desert 400 sq. m. Pop. 50,000; of town, 5000. Khotin (Pol. Chocim), a tn. in the Bessarabia gov., Russia, on the Dniester; not far from the Austro-Hungarian frontier. The Turks were defeated here by John Sobieski (1673). Pop. 30 600

Pop. 30,000.

Khulna, a tn. of Bengal, British India, 80 m. E.N.E. of Calcutta. Rice,

tobacco, dates, bananas, etc., are grown extensively. Pop. 10,000. Khurja, a tn. in the Bulandshahr dist., United Provinces, India, 50 m. S.E. of Delhi. It is a centre of the cotton trade. Pop. 30,000.

Khushab, a tn. in the dist. of Shahpur, Punjab, India, on the Jehlum, 105 m. S.S.W. of Rawal Jehlum, 105 m. S.S.W. of Rawal Pindi. It has a busy trade in cotton prints and coarse cloth. Pop. 12,000.

Khuzistan, or Arabistan (ancient Susiana), a prov. of Persia, bordering on the northern shores of the Persian The northern and easterly Gulf. district is hilly and productive. Large tracts are used as pasture land, and rice, cotton, sugar-cane, dates, tobacco and oplum are grown. The southern portion is flat and unfertile, Their number is estimated at 700,000. southern portion is flat and untertue, Khonsar, or Khunsar, a tn. in the and during the rainy season is often

swamped. Cap., Shuster. A: 25,700 sq. m. Pop. about 200,000. Area

Khyber (or Khaibar) Pass, a narrow pass connecting Afghanistan with the Punjab, and is on the line of route from Peshawur to Kabul. Its length is about 33 m., and its width varies from 450 ft. in its widest part to about 50 ft. in its narrowest part. flanked on both sides by mountains which rise sheer above it to a height of 3000 ft. in some places, its summit being at Landi Kotal, which is 1700 ft. higher than Jamrud. During the Afghan wars of 1839-42 and 1878-80, the British were successful in crossing it in spite of great resistance, and it is now under the control of the

Anglo-Indian government.
_ Kiachta, or Kiakhta, a tn. in the Transbaikalia gov., Siberia, close to the Chinese frontier. It is an important trading centre for tea. Pop. 9000.

Kiamil Pasha, a Turkish politician. He was Grand Vizier in 1885. His His action in regard to the Armenian unrest in 1890 led to his dismissal. As an advanced Liberal he was again made Grand Vizier in Aug. 1908, after the Young Turk Revolution. He was forced to resign in Feb. 1909, and was succeeded by Hilmi Pasha. He was grand vizier for a third term during the Balkan War (1912-13), and was succeeded by Mahmud Sheyket Pasha at the coup-de-etat of Jan. 23, 1913.

Kiang-si, an eastern prov of China, with an area of 69,480 sq. m. Nan-shan Mts. lie across the province in a south-westerly and north-easterly direction. In the N.E. region is the immense Po-yang Lake (1200 sq. m.), which receives the waters of the Kan Kiang and the Chang Kiang. The most important product is tea, the introduced in 1735. The 'kidder-best black teas of China being pro- minster' carpets, an interior kind, duced in this region. Other products are now not manufactured in such are tobacco, hemp, cotton, silk, grass-quantities as are the Brussels, Wil-

Kiang-su, a maritime prov. of China, bordering on the Yellow Sea to the E. Area 38,600 sq. m. It

Horse, or Wapta, R.

Kidd, William (Captain Kidd) (c. 1645-1701), a pirate of Scottish extraction. In 1691 he was awarded extraction. In 1691 he was awarded £150 from the council of New York for his services in privateering against the French. He was put in command of a ship in 1696 with orders to seize the pirates that infested the Eastern Seas, and reached Madagascar in 1697. In 1698-99 it was reported in England that K. was plundering trading-vessels, and had associated himself with the pirates. He was arrested, and having been formally charged for the murder of one of his crew and for piracy, was found guilty and hanged at Execution Dock, London.

Kidder, Richard (c. 1630 - 1703), Bishop of Bath and Wells, was edu-cated at Emmanuel College, Cam-bridge, of which college he was made fellow in 1655. On refusing con-formity to the Prayer Book, he was ejected from the benefice of Stanground in 1662, but later conformed and rose to episcopal rank. He continued, however, to be viewed with suspicion by zealous churchmen. Amongst his writings may be mentioned Demonstration of the Messiah, 3 vols., and A Commentary on the Five Books of Moses.

Kidderminster, a parl. and municipal bor, and market tn. in the county of Worcester, situated on the Stour, 14 m. N. of Worcester. The church of All Saints is a fine example of Early English architecture with Decorated and Perpendicular addi-tions. There are worsted-spinning tions. mills, dye works, tin-plate works, in addition to the chief industry, the manufacture of carpets, which was introduced in 1735. The Kiddercloudeco, nemp, cotton, silk, grass-quantities as are the Brussels, Wilcloth, and paper. China ware is ton, and Axminster varieties. The manufactured at King-te-chên. The Stafford and Worcester Canal passes capital is Nan-ch'ang Fu, on the Kan through the town. The borough re-Kiang. Pop. of province 26,532,125. turns one member to parliament.

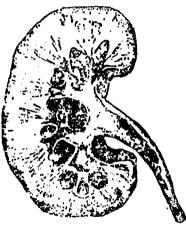
of Area 1214 acres. Pop. 29,000. Sea Kidnapping is defined by Black-It stone as the forcible abduction or to the E. Area 38,600 sq. m. It stone as the forcible abduction or is a great plain, with no hills, and is watered by the Grand Canal, running S. to N., and by the Yang-tse-kiang R. The capital is Nanking, and the chief port Shanghai. Some coal and iron ore is extracted near Nanking; sugar, tea, and cotton are grown; and beautiful silks are manufactured. Pop. 13,980,235.

Kiao-Chou, see Chiao-Chou.

Kicking-Horse Pass, in the Rocky Mts. of Eastern British Columbia, Canada, on the Canadian Pacific Steal any article upon the child. The offence is a felony under the Offences against the Person Act, 1861, punishable is trayersed by the Kisking-tent of seven years. Ot a similar and is trayersed by the Kisking-tent of seven years. and is traversed by the Kisking-tent of seven years. Of a similar nature is the misdemeanour of forcibly

out of her parents' or lawful guardian's possession, such abduction being punishable by imprisonment not exceeding two years. Blackstone under the title of K. notices also the cognate offence of forcing a seaman on shore from a vessel and leaving him there; which offence is now a specific crime under the 57 and 58 Vict. c. 60, and punishable with imprisonment not exceeding two years, or summarily months' imprisonment or penalty not exceeding £100.

Kidney-bean, see BEAN. Kidneys, The, are two organs, in man somewhat larger than in the sheep, placed in the lumbar region of the abdominal cavity, one on each side of the spine, to which the con-Through this cave side is turned. Through this concavity the renal arteries and veins connect the organ with the aorta and vena cava inferior, and the ureter proceeds from the K. to the bladder.



HUMAN KIDNEY IN VERTICAL SECTION

a, Cortex; b, pyramids in medulla; c, calvees formed by division of uretur; d, ends of pyramids; ϕ , pelvis of kidney; w, ureter or duct of kidney which collects the urine and empties it into bladder.

A cross section shows a dark-coloured cortex, a lighter medulla, and a number of pyramids with their apices pointing into the pelvic cavity. These pyra-mids are formed by fine tubules arranged in parallel and terminating at the apices in small orifices. At the base of each pyramid they subdivide and radiate, coil and interlace in the medulla, and each finally terminates

taking an unmarried girl under six-tin a capsule. These Malpighian capsules are entered by the arterial capilsuics are entered by the arterial capillaries, which form bunches, glomerull nearly filling the capsules. The blood leaves by a network of capillaries which surround and enfold the tubules. Here and in other portions the lining of secretive cells obtain from the blood the products which it is the function of the K. to excrete, and the wine they formed research. and the urine thus formed passes out of the tubules into the ureter and thence into the bladder. A normal man excretes some 50 oz., or 21 pints, per day, consisting of urea (about 2 per cent.), uric acid, urates, phosphates, oxalates, chlorides. sodium chloride forms the chief salt and about 1 per cent. of the urine, the other base being potassium, calcium, and magnesium. The urea itself represents nearly all the nitrogen of the proteids introduced into the body, and the K. are thus looked upon as the excretory organs of nitrogenous

waste. Diseases .- Congenitally these group under the heads of anomalous position or number, atrophy of one, cystic disease, and growths. Floating kidney is due to insecure peritoneal handing in the bed of fat which surrounds the K. It is not usually of importance, but may cause trouble by kinking of the vessels at the hilum. The princi-pal growths affecting the K. are tubercle, adinoma, and sarcoma; they are recognised partly by hæmature and general emaciation, and are extremely dangerous, but the K. are not prone to malignant disease. Dieting and rest are essential; medicinal treatment being of little use and surgical resorted to only in very minor For Bright's disease. cares. NEPHRITIS. Calculi, consisting of uric acid, sometimes of oxalates, and occasionally of phosphates, are frequently found in the pelvic cavity; commencing as minute grains they become larger by accretion and give rise to renal colic, or such conditions as hydromphrosis, when the passage of urine may be prevented; pyonephritis, the pelvis becoming filled with pus; internal abscess or perinephritic abscess: or even possibly cancer.

Kidney Stones, reniform masses of ferric oxide, usually red or brown; neither so hard nor so dense as crystalline hematite; usually occur in association with clay as in the S. of England. This deposit is the red ochre of commerce.

Kidney-vetch, or Lady's-fingers, the popular name of Anthyllis vulneraria, a leguminous plant which flourishes in Britain. The plant is a herb with glaucous leaves, the capitulate in-florescence is composed of yellow flowers, the stamens are united by their filaments, and the floral mechan- | Worse (1880), which made his reputaism is like that of the Lotus

Kidron, or Kedron, a brook which formerly flowed through a ravine in the valley of the same name, E. of Jerusalem in Palestine. It is frequently mentioned in the Bible

Kidsgrove, a tn. in Staffordshire, England, 5 m. N. of Newcastle-under-Lyme. It has coal mines and blast furnaces. Pop. (1911) 9012.

Kidwelly, or Cydwell, a bor. and scaport of Carmar heushire, Wales, on the Gwendraeth, near Carmarthen Bay. It has tin-smelting and brick works, and coal mines. Pop. (1911) 3035.

Kieff, see Kiev.

Kickie, the popular name conferred on Freycinetia Banksii, a species of Pandanaceæ found in Polynesia. The plant is shrubby in habit and the in-

florescence is a spadix.

Kiel, the chief naval port of Germany in the Baltic, and a town of the Prussian province of Schleswig-Holstein, situated 27 m. S.E. by S. of There is a royal palace, a Schleswig. university founded 1665, in Nicholas' Church, of the 13th century, and a castle with a sculpture gallery. The harbour has an average depth of 40 ft., a length of 11 m., and a breadth varying from 1 m. at the S. end to 4; m. at the mouth. It is well de-fended, and there are five imperial docks. The town has a trade in coal, timber, and cereals, fish, butter, cheese, and manufactures of tobacco, soap, machinery, starch, fish curing; there are also oil works, breweries, and printing works. The Kaiser Wilhelm or Kiel Canal has its eastern entrance at Wik. 11 m. to the N. of Kiel. Pop. 203,845.

Kielce, or Kieltsy: 1. A gov. of Russiau Poland, separated from Galicia by the Vistula. Area 3897 sq. m. It has valuable deposits of minerals, including coal, iron, copper, lead, zinc, sulphur, etc. The inhabitants are chiefly engaged in agriculture; and potatoes, veretables, and grain are exported. There are flour grain are exported. mills, tanneries, and potteries; and machinery, paper, glass, leathergoods. and metal objects are manufactured. Pop. 965,200. 2. The cap. of the above Fov., 85 m. N.E. of Cracov. Its chief industries a industries a rope. bricks, and . . up

of Jews and Kielland, Alexander Lange (1849-1906), a Norwegian author, born at Stavanger. He was educated at the University of Christiania, and became burgomaster of his native place (1891-190b). He was one of the leading 1000 ft. while in the E. lies the valley novelists of his country, his earlier of the Dnieper. Much of the land is works being written in the style of 'black earth,' and is cultivated, the Zola. His first novel was Garman og chief products of the soil being beet

tion, followed in rapid succession by Arbeidsfolk, Skipper Worse, Snc, and many short tales. He also wrote some plays of a bright and lively description, viz. Bettys Formunder and Sankt Hans Fest, and a Life of Kristian Elster, 1882.

Kiepert, Johann Samuel Heinrich (1819-99), a German geographer, born in Berlin, and educated at the university there. His first work, in conjunction with Karl Ritter, Allas von Hellas und den hellenischen Kolonien, 1840-46, established his reputation as a cartographer of ancient history. From 1845-52 he acted as director of the Geographical Institute at Weimar, and in 1854 was appointed professor His works

> graphischer the famous chrouch der ; and Leit 1879 (Eng.

Kierkegaard, Sören Aaby (1813-55), a Danish philosopher, born at Copen-hagen. He graduated in 1840 at the university of his native town, and then travelled for two years in Gerthen travelled for two years in Germany. His first publication, Papers of a Still Living Man, 1838, on Hans Anderson, received little notice, but his Enten Eller (Either - Or), published in 1843, made his reputation as a great thinker. He also wrote the strate was (Stadla on as a great thinker. He also wrote Stadier paa Livets Vei (Stadia on Life's Way) in 1845, and many other In these he examined the works. fundamer and discu rules of li attacked National

of his we Consult t Brandes and his own autoble mapliford attends. Synspunktel from the former of syntax any

Work).

Kiesewetter, Raphael Georg (1773-1850), a Gorman writer on musical matters. His works on the 'Golden Age 'of music in the Netherlands, his researches into the origin and nature of Arabic and of European music, and on the evolution of 'absolute' (i.e. secular, as opposed to mediaval church) music are of considerable importance. His chief history of music appeared in English in 1848.

Kiev, or Kieff: 1. A gov. of S.W. Russia, with an area of 19,676 sq. m. The country to the W. is in the form of a plateau, reaching to over 1000 ft., while in the E. lies the valley of the Dnieper. Much of the land is black earth, and is cultivated, the

root, wheat, oats, barley, tobacco, flax, vegetables, etc. The minerals include labradorites, iron, lignite, Loadened Conscience (1616). There are many large factories, the chief being distilleries, machinery shops, tanneries, petroleum refineries, paper mills, brick works, and tobacco factories. Orthodox Greeks preponderate, but there are a large number of Jews and Roman Catholics. Pop. 4,556,000. 2. A Russian tn., cap. of the above gov., situated on the r. b. of the Dnieper, 628 m. S.W. of Moscow. It is a beautiful town, the old quarter being built on a range of hills overlooking the low country across the river. The cathedral of St. Sophia, the oldest in Russia, is renowned for the golden cupola. The church of St. Andrew the Aposte. records the traditional spot where the apostle stood when he prophesied the existence and future prosperity of this city. The Kievo-Pecherskaya monastery, said to date from the 9th century, is visited by 250,000 pilgrims annually. The Podol is the industrial quarter of the town. It owns a university and important scientific institutions. a theological academy (1631), and a military gymnasium. The chief trade is in sugar. Pop. 468,712. See De Baye, Kiev, la Mêre des villes russes, 1896, and Mukalov, Géographie du Gouvernement de Kiev, 1883.

Kikuyu, or Kenia, a region of the British East Africa Protectorate in Ukamba prov. It contains the mountain Kenia (q.b.). Pop. about

320,000.

Kilauea, a volcanic crater in the eastern part of the Hawaii Island, on the eastern slope of Mauna Loa. 4000

ft. above the sea-level.

Kilbarchan, a tn. in Repfrewshire, Scotland, 51 m. W. of Paisley. It has calico-printing and paper-making in-

dustries. Pop. of parish (1911) 7491.
Kilbirnie, or Kilburnie, a tn. in Ayrshire, Scotland, 17 m. W.S.W. of Glasgow. Its chief industries are chemical, iron, and steel works, cotton and linen manufs, and mining, Pop. (1911) 7618.

Kilbowie, see CLYDEBANK. Kilbride: 1. East, a vil. and par. of Alteriage 11. East, a vin. and par. of Lanarkshire, Scotland, 6 m. S. of Glasgow. It has coal mines. Pop. (1911) 3977. 2. West, a vil. and par. of Ayrshire, Scotland, 4 m. N.N. W. of Ardrossan. Pop. (1911) 3164.

Kilburn, a suburb of London in the bor. of Hampstead, 5 m. N.W. of St.

Paul's Cathedral.

Kilbye, Richard (c. 1560-1620), an English divine and Biblical scholar, cathedral fellow of Lincoln College, Oxford, 1255, and regius professor of Hebrew (1610); English stwas one of the translators of the can and

Loadened Conscience (1616).

Kildare: 1. A co. in Ireland, situated in the prov. of Leinster. It is bounded on the E. by Dublin and Wicklow. It contains an extensive plain, part of which forms the Allen Bog. Its principal rivers are the Boyne, Liffey, Barrow, and Lesser Barrow. The dist. of Curragh in the centre of the county is most fertile, affords excellent pasturage. Potatoes, oats, and barley are very extensively cultivated. Area 654 sq. m. Pop. (1911) 66,498. 2. The chief city and market th. of K., possesses many objects of historic interest, such as the ancient cross, small chapel, and round tower. Pop. (1911)

Kilfenora, formerly a bishop's see in the archiepiscopal prov. of Cashel, Ireland. It is now included in the Clonfert, and

ed to. in S.W. of Odessa. It is a thriving town, with good fisheries. Pop. 12,000.

Kilian (or Chilian), St. (fl. 700 A.D.), an Irish missionary bishop and apostle of Franconia, who preached to the heathen of Würzburg, and was put to death by Duke Gozbert. His festival falls on July 8. See J. O'Hanlon's Lives of Irish Saints, vol. vii., 1875. 1904.

Kilima-Njaro, a mountain mass in the N. of German E. Africa, situated between Victoria Nyanza and the coast. It culminates in two peaks, Kibo (19,720 ft.), and Kimawenzi (17,500 ft.), which are both craters of extinct volcanoes. The crater of the former is 6500 ft. in diameter, and 650 ft. deep. The mountain was climbed by Capt. Johannis in 1902. See Johnston's An Expedition to Kilimanjaro, 1893

Kilindria (ancient Kelenderis), a tr. of Adana vilayet, on the S. coast of Asia Minor, 125 m. from Konieh

15.

Ireland, is Its chief and Nore, Hoom Mts. Harbour. d from the

Castlecomer basin. The climate is agreeable and mild. Cattle trading is carried on, and potatocs and turnips are largely cultivated. Area 192 sq. m. Pop. (1911) 74,821. 2. The cap., is divided into two districts. Eurolishte. exist, also the Protestant College of Connecticut, U.S.A., 36 m. from New St. John, where Swift and Bishop London. Pop. (1910) 6564. Berkeley were partly educated. Pop. (1911) 10.513.

Killala, a small tn. in Ireland, co. Mayo, which dates back to the 5th

century. Pop. about 500.

Killaloe, a tn. in Ireland, on the R. Shannon, 17 m. from Limerick. It was the cap. of the kings of

Munster. Pop. about 900.

Killarney, a market town and Killarney, a market town and favourite resort for tourists, situated in the co. of Kerry in Ireland. The Lakes of Killarney are 1½ m. from the town, and are shut in by wood-crowned mountains. The Lower Lake called Lough Leane is dotted about with wooded islands, the most important one being named Ross Is.; another isle contains the beautiful ruins of the abbey founded by St. Finian the leper. Muckross Abbey, which was built by the Franciscans about 1440, divides the Lower Lake from the Middle Lake or Torc Lake. The Upper Lake adjoins the Middle and Lower lakes by means of the Long Range, a channel 2½ m. long. Places of especial beauty and historic interest are the Macgillicuddy Recks, the Torc and Purple Mts., and the famousgap of Dunloe. The Innisfallen ruins, Muckross Castle, and Aghado Churchare other noteworthy features.

Churchare other noteworthy features.

Killieorankie, Pass of, in Perthshire, Scotland, in the valley of the Garry, extends from Killiecrankie Station 1½ m. to Garry Bridge. On the plain at the top of the pass Dundee defeated the troops of William III. in 1689, and received his death wound.

System.

Kilpatrick, New or East, or Bearsden, at n. and residential suburb, 5 m. from Glasgow. Pop. (1911) 13,798.

Kilpatrick, Old or West, a tn. in Scotland on the R. Clyde, 10½ m. N.W. of Glasgow. It is supposed to have been the birthplace of St. Patrick, of Oman

death wound.

Killigrew, Thomas (1612-83), the Elder, a dramatist, the son of Sir Robert K., vice-chamberlain

Queen Henrietta Maria, was page Charles I. in 1633. His play, I Parson's Wedding, was popular beft the Civil War, after the outbreak of which he resided abroad with the English court, At the Restoration he returned, and was appointed by Charles II. groom of the bedchamber. He built a theatre where Drury Lane now stands, and there produced many plays, including some of his own compositions. His works were collected

and published in 1664.
Killigrew, Sir William (1606-95),
an English playwright, the cldest
son of Sir Robert K. He was gentleman-usher to Charles I., and had command of a troop which guarded the king's person during the Civil War. He published three plays, viz. Sclindra, Pandora, Ormasdes (1665), and various pamphlets concerned Kilwa-Kivinje, an important sea-with the unsuccessful attempts to drain the Lincolnshire fens (1647-61). Killingly, a tn. in Windham co., Lake Nyasa. Pop. 8000.

Killingworth, a tn. in Northumberland, 6 m. N.N.E. of Newcastle. Has coal mines. Pop. (1911) 8500.

Killiz, Killis, or Kills, a tn. of Turkey in Asia, 34 m. from Aleppo. It is noted for its olivo groves which produce very fine oil. Pop. 20,000.

Killyleagh, a seaport on Lough Strangford, Ireland. There is an export of agricultural produce, and the principal industry is the manuf. of linen. Killyleagh Castle is in the vicinity. Pop. (1911) 4000.

Kilmainham, the western suburb of Dublin city, co. Dublin, Ireland. It contains the county gaol in which Parnell, O'Brien, and other political prisoners were incarcerated. Pop. 6000.

Kilmarnock, a municipal burgh in the co. of Ayrshire, Scotland, is situated on Kilmarnock Water, a distant from Glasgow. The Burns Memorial, a museum in Kay Park, contains several MSS. of the poet. K. is noted for its woollen manufs. Pop. (1911) 34,729. Kilogram, or

Kilogram, or Kilogramme, a French measure of weight, which is equal to 1000 grammes, i.e. about 22046 lbs.; 1000 Ks. make a metric ton. i.e. 22046 lbs. See METRIC SYSTEM.

Kilment a second on the estness of

in grain and timber, as well as a large export of peat. There is a good

harbour. Pop. (1911) 4200.

Kilsyth, a tn. of Stirlingshire in Scotland, 13 m. distant from Glasgow. Coal mining and iron works are the chief industries. William Chalmers Burns inaugurated a remarkable spiritus warranged in treasurable spiritus warranged in the spiritus warranged markable religious revival in 1539. Pop. (1911) 8106. Kilt, see Highland Dress.

Kilwa-Kisiwani, a scaport of German East Africa, on an island 150 m. S.E. of Dar-es-Salaam. The island 150 m. S.E. of Dar-es-Salaam. The island contains Arab ruins, and the remains of a fortress of the Portuguese. There is a deep, sheltered harbour. Pop. about 650 about 650

Kin

who lived there in the 8th century. A famous abbey was raised to his memory by Hugh de Morville in

1140.

Kimberley: 1. The cap. of Griqualand West, Cape of Good Hope, S. Africa, and is the most important diamond-mining centre of that coun-The town is built round about the mining camps, which are scat-tered about in different directions. Diamonds were first discovered by diggers on the farms of Du Toit's Pan and Bultfontein in 1870. Further discoveries of diamonds were made in 1871 at De Beers and Colors were Konie. Ultimately the mines were De Beers and Colesberg placed under British control, when the whole diamond market became vested in one company, the De Beers Consolidated Mines, Limited. The annual output amounts to about £4,500,000 annually. K. holds an important position owing to its situa-Railway communication has tion. been opened up with K. between Cape Town and Johannesburg; the town also forms the point of departure for travellers making their way into the interior. The climate is salubrious, and the soil is fertile, the town being provided with a good water supply from the R. Vaal. There are fine law courts, a town hall, and public gardens. The town hall, and public gardens. The town underwent a siege during the Boer War, 1899-1900. Pop. 35,000 (14,000 whites). 2. Goldfield in the Kimberley dist., Australia, 300 m. S.E. of Derby. Area 47,000 sq. m.

Kimberley, John Wodehouse, first Earl of (1826-1902), was born at Wymondham, Norfolk. Adopting the Whig politics he held office in Lord Palmerston's first and second government, and was British minister at St. Petersburg, 1856, and Under-Secretary for India, 1864, becoming Lord-Lieu-tenant of Ireland the same year, and in consequence of the work of pacification which he accomplished while holding that office was created Earl of Kimberley. In 1868 he was Lord Privy Seal in Gladstone's first administration, and in 1870 succeeded Granville at the Colonial Office. It was during his tenure of this post that the grant of complete self-government was given to the Boers, after the defeat and death of Sir George Colley at Majuba Hill, 1881. In 1882 he was transferred to the India Office and in 1891 true leader India Office, and in 1891 was leader of the Liberal party in the House of

Lords.

Kimchi, David (c. 1160-1235),

Kilwinning, a municipal burgh of Ayrshire, in Scotland, situated on the r. b. of the Garnock, and is about 155 m. S.W. of Glasgow. The town Miklol, which consists of two parts, derives its name from St. Winnin 150 Miklol, or grammar, and the Sefer He also Hashorashim, or lexicon. wrote commentaries on portions of the Scriptures of which his com-mentary of the prophets is the best though that on the Psalms is interesting. But his fame rests upon his grammar and lexicon, which have formed the basis of all subsequent Hebrew grammars and lexicons.

Kimmeridge Clay, in geology, the lowest series of the Upper Oolites. The upper part of the formation consists of dark blue bituminous shales, and the lower part of clays and shales in which calcareous concretions are found. The clay takes its name from the village of Kimmeridge in Dorsetshire: it is to be seen continued from the Dorset coast into Wiltshire, and thence along the Jurassic outcrop into Yorkshire. The economic products of

bricks, tiles, etc. Fossils are abundant in both series of the formation, including remains of dinosaurs, plesiosaurs, and ichthyosaurs.

Kimpolung, a tn. of Bukovina, Austria, on the Moldava, situated about 55 m. S.W. of Czernovitz. Pop 9254.

Kin, Next of, or 'nearest of consanguinity,' in the same degree of relationship, are those among whom is distributed the personal property of a person who dies wholly or partially intestate as to that property. As a general rule the right to take out administration to the personal effects of an intestate follows the beneficial right to the property. (For the order in which the representatives take, see under DISTRIBUTIONS, STATUTES OF.) A husband has the exclusive right of taking out letters of administration to his wife's estate, and if he dies without doing so, the wife's next of kin may take out administration, but they will hold the beneficial interest in the property for the busband's personal representatives. Where none of the kin will take out administration a creditor is entitled to do so. A gift whether in a deed or will to the next of kin, whether simplicited, or with reference to the Statutes of Distributions, or to intestacy, does not include a wife or husband. The phrases 'next of kin,' and 'next of kin according to the statutes,' as frequently used in gifts under deeds and will, are to be distinguished. The former is existing confiscal to the of former is strictly confined to the literal meaning of the words, but the a latter includes those who, not actually to the

next of kin, represent deceased next woollen balls; the second, a wooden of kin. See on this Goodeve's Personal ball, roller, and undivided cube; the

Property. See also DISTRIBUTIONS, STATUTES OF; INTESTACY.
Kinburn, an ancient fortress in the

gov. of Taurida, Russia, situated on the sandbank which divides the Dnieper from the Black Sca. It at one time belonged to the Turks, but at the peace of Kuchuk-Kainardji, 1774, passed into the hands of Russia. It was bombarded in 1855, and razed in 1860.

Kincardine, or Penetangore, a tn. of

Bruce co., Ontario, Canada, situated on Lake Huron. It has iron-foundries and salt works. Pop. 2000.

Kineardineshire, or The Mearns, a maritime co. in the E. of Scotland, with an area of 381 sq. m. The surface in the contraction of the cont maritime co. in the E. of Scotland, are happily and busily employed with with an area of 381 sq. m. The surface is mountainous, the highest peak cutting, stick-laying, plating, sandbeing Mt. Battock, 2555 ft., but in '... lay and plasteof the county slopes into the val car of the Dee, and in the S. into How of the Mearns, which is a con-moreover, are skilfully tinuation of Strathmore. The tainous region is occupied by moors, but the valley of the D Howe of the Mearns, and the sea look after. coast, which is the most fertile part, Freebel was the first to recognise are devoted to the growth of crops, the responsibilities of the teacher who principa

and pot ... salmon There is haven.

Kin-chow, a tn. of Manchuria, on the railway from Kharbin to Peking, and near the Gulf of Liaotung. Pop.

about 25,000.

Kindergarten, the name chosen by Friedrich Froebel to describe the 'play-school' which he evolved as best adapted for the all-round development of young children up to the age of seven or eight. The word 'kindergarten' is the German for the children's garden, and thus recalls teacher could not hope to be comtant analogy, which its inventor to be knew ogravity of a child and of a plant. child,' he would say, 'is a plant to trained, not a piece of clay to be child in particular.

The principles of Froebel met with teacher. Its growth, like a plant's, is from the inner to the outer world. In his country, but Germany does not Induced with the ideals of the country of Imbued with the ideals of his enlightened Pestalozzi, predecessor. Froebel claborated a system of organ-ised games calculated to satisfy the child's inborn love of play and fellowship, and at the same time to exercise and develop its sensibilities and healthy activities, and to teach it, all unconsciously, something of its duties

third, a cube divided into eight smaller cubes; and the rest, cubes variously divided so as to teach symmetry and design, besides the elements of arithmetic. Like the ancient Greeks. Froebel was fully alive to the value of rhythm and music in education, and encouraged the training of the ear and voice. He appreciated story-telling as a natural and helpful means of est, and, above

ith the need of upon the solid basis of first-hand experience or

intuition. In the Ks. of to-day the children

> cane-weaving. gymnastics.

interwoven

7 out his system, ocated a training hat necessary to

for the certificate int Board of the the Kindergarten

The examination for the Elementary Certifi-

natural science; class teaching, music and singing, whilst no one can win the Higher Certificate without some knowledge of hygiene, two other sciences, geometry, and the theory, history, and practice of education. Froebel taught, moreover, that the

of each

in his country, but Germany does not stand alone in rejecting her own prophet. Ks. flourish bestin America; the first was established at St. Louis in 1873, and there are now free Ks. in Boston, New York, San Francisco, etc., besides a number of training colleges. Pioneer work in America was done by Miss Peabody, Dr. Barnard, Dr. Adler, and Mrs. Quincy towards Nature, Man, and God. For Shaw; in Italy by Madame Salisthe realisation of these aims he relied Schwabe; and in England by Miss partly on what he called the six Shirreff, for some time president of gifts' The first was six coloured the Froebel Society, Madame de Portugall, chester as Michaelis, in 1874. Switzerlat and India culture for part of public education, wifermany, England, France, A Hungary, and Cannda, it owes creasing popularity largely to

tiring labour and devotion of Maria Montessori, who in 1908 opened her schools, known as the 'Casa dei her schools, known as the 'Casa dei her schools, known as the 'Casa dei Bambini,' for the small children from certain tenement houses in Rome. As early as 1898 she was appointed director of the Scuola Magistrali Ortofrenica, an elementary school, that is, for the mentally deficient, and so wonderful was the response which the intelligence of these backward children made to her teaching, that she was anxious to apply her principles to normal children. The experiment has been tried in the Casa dei Bambini, the result being that the little scholars of Dr. Montessori learn to read and write and to

of her schoolroom. Already one 'Montessori system' is making headway in Great Britain and America.

Kinder Scout, a mountain in the co. of Derbyshire, England, and the highest point in the Peak district. Altitude 2088 ft.

Kinderscout Grit, in geology, a variety of the milistone grit overlying the carboniferous limestone. It takes its name from Kinder Scout, a summit of the Peak district. The formation consists of shales, grits, and sandstones, and is coarser and harder than the milistone grits in ge:

not yielding such good as the other sandstor

as the other sandstor shire, it is quarried for such purposes as foundations, etc., where its disadvantages as regards dressing need not be apparent.

Kinematics, a branch of the science in which motion is conton to any force.

of force is consider it as ces change of momentum.

Momentum is proportional to mass

and is measured by fundamental unit of rived unit of velocity. regard to a particular t quantity, it may be

nd .ce ole

in relationships which can s be examined in the light of I knowledge.

is measured by the number nits passed over in a unit of time; it is therefore proportional to the space traversed by a moving particle and inversely proportional to the time occupied in traversing it. This is expressed by the formula v=s/t, or s=vt, where s represents space, or length, v represents velocity, and t represents time, in their appropriate me

rate of ch has an ini and that per sec. e...

where V = initial velocity in, say, ft. sec., f = acceleration in ft. per per sec.—that is, the number of ocity units added on per second—

velocity during the period, if sleration be uniform, may be sthe velocity of the middle of mean of the initial and final velocities. Average velocity therefore

 $\frac{V+v}{2}$; that is (V+V+ll)+2, or, V+ll. Now the length traversed by a body moving with uniformly accelerated velocity would be the same as if it moved uniformly with the average velocity throughout the period. Therefore, a we have, ir or $s=Vl+\frac{1}{2}l$ get 2ls=2V.

the whence by subtraction v=V+ft, we get v=V+ft the result $v^2-2fs=V^2$, or $v^2=V^2+2fs$. We now have certain relationships of space and time expressed concisely by formulæ, which may be recapitulated thus: for uniform velocity, s=vt; for uniformly accelerated velocity, v=V+ft, $s=Vt+\frac{ft}{2}$.

*** V*+2/s.

Kinematics also deals with the kinematics also deals with the the resultant

· ssessed by a of course, is

relative; and it may be the purpose have the capacity of doing work by of a problem to determine the motion of a body with reference to a certain body or surface, as, for instance, the surface of the earth.

Kineshma, a tn. in the gov. Kostroma, Russia, about 56 m. S.E. of Kostroma, on the R. Volga. Pop.

Kinetics, a branch of the science of mechanics which treats of the action of forces in producing or changing the motion of a body. If the forces are so balanced that the body remains in a position of rest or equilibrium, the consideration of the conditions is a part of statics, or the science of equili-brium of forces. The fact of actual motion is not considered by modern potential energy = mgh.

the present day is to consider all such problems under the heading of dynamics, or the science of force. It is convenient, however, to treat of certain particular deductions from treat of Newton's laws of motion under the

heading of K.

Kinematics (q.v.) treated of motion without regard either to the body moving or the cause of change of motion. K. introduces the considerations of mass and force. Newton's first law, which may be concisely stated as that change of motion is caused by forces acting upon the body, gives us, therefore, a definition of force. The law may be otherwise stated as 'a material body possesses inertia.' The second law states that the change of motion is proportional to the impressed force and takes place in the direction of that force. motion is meant momentum, which is measured by the product of the body's mass and its velocity. Force is measured, therefore, by consideration of the mass of the body and the acceleration or change of velocity, induced by the force. This gives us the funda-mental relationship of K., which may be concisely stated thus: P = mf; that is, force = mass × acceleration. The unit of force is called the poundal, and is defined as that force which, acting on a mass of 1 lb.for onesecond gives it an additional velocity of 1 ft. per second. A force may not cause actual motion, but in any case it tends to do so. If the point of application of the force moves in the direction in which the force acts, the force is said to do work. Work is measured by the distance through which the point of application moves multiplied by the measure of the force. The unit of work is that amount of work done by

virtue of the momentum it possesses, or through its position or configuration; it is then said to possess energy. Energy possessed by virtue of motion is called kinetic energy; that possessed by virtue of the position of a body, as in a weight supported above the ground, or through the position of its parts, as in a coiled watch spring, is called potential energy. The former he equation

is measured

by its distance in feet above the ground. That is, potential energy = Wh, but weight is proportional to the mass and the acceleration due to gravity; hence

Kinetoscope, see CINEMATOGRAPH. King (A.-S. cyning, man of the tribe, or chief), the man who nominally holds supreme power in a state. A reigning queen has equal power, but not a queen-consort. See GOVER MENT, PARLIAMENT, SOVEREIGNTY, See GOVERN-

King: 1. An island off Australia, lying to the N.W. of Tasmania, in Bass Strait. 2. Or Springhill, a vil., Bass Stratt. 2. Orspringful, a Vil., York co., Ontario, Canada, about 21 m. N. of Toronto. 3. A co. in Washington, U.S.A., bounded on the W. by Puget Sound and Admiralty Inlet. Cap. Scattle. Pop. (1910) 284,638.

King, Charles (1687-1745 or 1748), a composer of church music, born at Bury St. Edmunds, was for most of his life connected with the choir of St. Paul's. His music is of no remarkable interest, but his services in F and C, and a few of his anthems, are still

performed occasionally.

King, Edward (1829-1910), Bishop of Lincoln, educated at a private school, whence he passed to Oriel College, Oxford. He was ordained deacon in 1851, priest in 1855, and in 1862, heavy a windight of Coldege and in 1863. 1863 became principal of Cuddesdon Theological College, where he exercised an enormous influence over the ordinands studying under him. In 1873 he became professor of Pastoral Theology at Oxford, and in 1885 passed to the bishopric of Lincoln. Here he speedily became as great a force as he had been elsewhere, and his work continued tranquilly, cept for the stir caused by a fruitless attempt by secure his ise of certain on

March 8.

King. Henry (1591-1669), Bishop of Chichester and poet, educated at Westminster School and Christ Church, Oxford. In the year that he was made Bishop of Chichester (1642) he was taken prisoner by the Parliaa force of one poundal by moving its mentary army, but was later released, point of application one foot; it is He was a personal friend of Charles I. called a foot-poundal. A body may He published a metrical translation

of the Psalter (1651) and some poetry. In one of his poems he makes a reference to Eikon Basilike as the work of the king. He was restored to his benefice at the Restoration, and he died at Chichester. He was one of died at Chichester. He was one of the executors of John Donne.

King, Peter, first Lord (1669-1734), an English lawyer and Whig politi-cian, a relative of J. Locke. He be-came recorder of London, and was knighted (1708), Baron King of Ock-ham, and Lord Chancellor (1725-33). He w.

The P of the

Campbell, Selections from Speeches of Lord King; The Judges of England, by Foss (1848-64) and Welsby (1846).

King, Sir Richard (1730-1806), an born at Gosp admiral, entered the navy in 1838, served in the Mediterranea

Indies, was promoted to be lieutenant in 1746. In 1756 he was in command of the landing party at the capture of Calcutta and Hoogly, and distin-guished himself in 1782 in the action off Sadras, after which he knighted. In 1787 he was promoted to be rear-admiral, in 1792 created a baronet and appointed governor and commander-in-chief at Newfoundland, and in 1795 was made admiral.

William (1663 - 1712), King, William (1663-1712), a learned English satirical and miscellaneous writer and poet, supporter of the Tory and High Church party. From 1701-8 he held various offices in Ireland. His works include Animad-

R. Moles-Transactioneer..., 1700, a satire on the Roy. Soc.; Dialogues of the Dead..., 1699, soti; Jintopines of the Deads., 1695, satirising Bentley; Vindication of Dr. Sacheverell..., 1711; A Journey to London..., 1699. See Remains... (Brown's ed. 1732); Orig. Works in Prose and Verse (Nichol's ed. with 'Memoir,' 1776); Johnson, Lives of

King, William Rufus (1786-700)
Vice-President of the U.S.A.,
in Sampson co., N. Carolina. F
admitted to the bar in 1800 entered Congress in 1810. He sented Alabama in the Senate from and wings are relatively short, and only slightly de-

King and Kingship, see Sove-REIGNTY.

King Charles's South Land, the largest island of Tierra del Fuego, S. America. It is generally level except in the W., where the highest point, Mt. Sarmiento, reaches a height of nearly 7000 ft.

King-crab, or Limulus, an arachnid belonging to the order Xiphosura, and is also called the horsefoot-crab on account of its peculiar outline. Formerly Limulus was classed as a crustacean, from which stock it, in common with all other arachnids, has no doubt sprung, but it differs in the absence of appendages corresponding. to the first antennæ, and in the division of the body into parts, the anterior portion being composed of The body of the K.

ephalothorax, the caudal spine; it is covered with a smooth, firm cuticle, having a glossy surface, and the under parts have small hairs. A distinct longitudinal ridge, called the camerostome, lies in front of the mouth, which is cushion-like and from which spring the seven appendages of the cephalothorax. There is an olfactory organ near the mouth; the median eyes lie on either side of a median spine, and the lateral eyes consist of a single layer of hypo-dermic cells. The Ks. are almost the only arachnids which retain the power of living under water; they are found from 2 to 6 fathoms beneath the surface, where they burrow in the mud or sand; their food consists of

King Edward VII., a British battleship, launched at Devonport in 1903. It has a displacement of 16,350 tons. a length of 425 ft., and a speed of

from 18½ to 19½ knots. There are several ships of this class.

King Edward VII. Land, a region in the Antarctic, lying to the E. of Victoria Land, about lat. 76° S. and 152° 30′ W.

bivalves and annelids.

Kingfishers are members of the of coraciiform · their peculiar colouring.

large, and the keeled; the tail

dedinide are some-

nto the sub-families wood-K., and Alce-r-K. The common

King Alfred, the name of an armoured cruiser of the British Navy. It is a vessel of 14,100 tons, with a side of the neck; the bill is black with speed of just over 23 knots an hour, and was launched in 1901.

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on a branch overhanging the water, or hovering with vibrating wings in search of the fish which forms its ever, the division is more useful, since principal diet; having sighted the prey it dives perpendicularly, with prey it dives perpendicularly, with period at first of great glory and then search of advances withing the previous search of a decaders of which the present of a decaders of which the previous search of the search or treemorsel branch K. feed also on insects and sman crustaceans, in search of which they occasionally visit the seashore. Their eggs are usually deposited on a bed of fishbones, concealed in holes in river banks, in tree stumps, or in old walls.

King George Sound, an inlet of Western Australia, containing Princess Royal and Oyster harbours, and

Forth, about 3 m. S.S.W. of Kirk-caldy. The inhabitants are engaged in shipbuilding and in the manuf. of glue. It is also a watering-place, and has golf links. Pop. (1911) 1549.

Kinglake, Alexander William (1809-91), an historian, was called to the bar in 1837. Two years earlier he had travelled in the East, and in 1844 he published his experiences in Eothen, or, Traces of Travel brought Home from the East. His interest in military panied the flying column of Arnaud, and, later, to the Crime Arnaud, and, later, to the content the beginning of the war. The urisdiction in volumes of his Invasion of the Crimea all matters both of common law (q.v.) and equity (q.v.); but in practice the K. B. D. deals principally with common law actions of debt (q.v.) and voery of land

WREN. Kingo, Thomas (1634 - 17 Danish poet, born in Icelan studied theology, and finally bishop of Fünen in 1677. H posed various kinds of poems, but county courts and quarter sessions, his fame rests upon his dan county courts and quarter sessions, see Criminal Argiungstor, the first part of appeared in 1674. These psalm cases, and appeared in 1674. These psalm cases and canticles are still sung in the L business of the

the herald

of decadence, while the previous period is that in which the kingdom was built up. Samuel and Kings were compiled from the same sources, and probably underwent successive re-dactions by the same hands. The books are drawn from a variety of sources. The principal of these are: 1. The Book o' ientioned i ook of the Judah. These are frequently referred to, but their exact nature is not known. 2. The Book of Jashar and

other popular and vivid collections of tales. 3. Certain official records of the temple, which furnish details about the dedication of the temple and its later history. The main interest of the last redactor lay in this religious developmer ' definitely

early kings

the standar
King's Bench Division, one of the
three divisions of the High Court of devoted much time, took him, in 1845, to Algiers, where he accombate, Divorce,

Theoretically

lovery of land

iods (see also for writs of ıdamus (q.v.),

ppeals from

develop the language.

King-of-Arms, or King-nt-Arms, an officer to an official referee (see also rectal Court). The Court of

the herald and have Sce Herald.

See Herald.

King Paradise Bird, see Bird of Paradise.

King Paradise Bird, see Bird of the Kings, The First and Second Books of, were anciently counted as one book, forming the fourth in the series of the earlier prophets. They are subdivided in the Septuagint, Vulgate, and modern Hebrew Bibles, being known in the Vulgate as the Third and Fourth Books of Kings (see subtined First Market). The division is not a very necessary one, and it is difficated.

reserved for royal hearing. James I., of a scholar from the sister founda-however, insisted sometimes in pre-tion of King Henry at Eton. But in siding over his courts, but the Stuart 1861 open scholarships were started, violations of law or constitutional and undergraduates not on the foundaconvention were unique. The old King's Bench Court always had a crown side and a plea side. In the former it dealt with criminal and quasi-criminal matters, generally ob-taining cognisance of purely civil suits through writs which alleged trespass vi d armis (by force and arms), whether force had been actually used or not (see also Fictions). wide jurisdiction in applications for writs of certiorari, mandamus, and other crown paper cases is derived from this criminal jurisdiction (see also CROWN CASES RESERVED). Its present revenue jurisdiction is a legacy from the defunct Exchequer Division (q.v.). The Lord Chief Justice (The Control of the K.B. D.,

iisne King's two judges 1) do not

necessarily constitute a permanent

Kingsbridge, a seaport and market tn. in the co. of Devonshire, England, situated S.S.W. of Exeter. Pop.

(1911) 3049.

Hay Athole 1836), Lord Kingsburgh, Kingsburgh, John Hay Athole Macdonald, Lord (b. 1836), Lord Justice-Clerk of Scotland since 1888, was born in Edinburgh. He became an advocate in 1859 and Q.C. in 1880. John From 1876-80 he was Solicitor-General for Scotland, and Lord-Advocate from 1885-89. He has He has boys. invented a holophote course dicator for preventing collisions at sea, a military field telegraph,

herethermorelesser, and other

and it was

ith the Post-

master-General and the government that postcards were introduced into Great Britain. His publications include: Common Sense on Parade; A New Form of Infantry Attack; A Treatise on the Criminal Law of Scot-

of Motor in 1905;

Roads.

Kingsclere, a par, and tn. of Hampshire, England, situated on a small tributary of the Emborne, 64 m. S.E. of Newbury. The name indicates that there was a royal residence here in Anglo-Saxon times. Horses are trained in the neighbourhood, and brewing and malting are carried on. Pop. (1911) rural dist. 8842.

King's College, Cambridge, was founded and endowed in 1441 by King Henry VI. for a provost and seventy scholars, and under the founder's statutes every vacancy had to be at once filled by the administration.

and undergraduates incontragrounda-tion were admitted to the college. All students, with a few exceptions, read for an honours degree. Its society at present consists of a pro-vost, forty-six fellows, and forty-eight scholars. This college has some unusual privileges: it was exempt from the jurisdiction of the Arch-bishop of Canterbury, the Bishop of Ely, and even of the university, in matters scholastic, and until 1857 members of K. C. could take a degree without passing the university examinations. The College Chapel is very fine, and contains some of the best glass and

King's Coll of the Londor founded in 1828, its constitution being amended by an Act of parliament in 1882. It is situated in the Strand, and affords instruction in theology, literature, science, engineering, and medicine for men students over the age of sixteen; but there is also a civil service department and an art school. Its library has over 30,000 vols., chiefly of a scientific character, and the museum contains King George III.'s collection of philo-sophical instruments and mechanical models, as well as Babbage's calculating machine. In connection with the college is a branch for the higher education of women, and a school for The latter and the hospital are shortly to be moved to South London.

King's (or Queen's) Counsel, those barristers of the English bar who wear silk gowns and sit 'within the bar.' Hence, colloquially called 'silks.' They take precedence of 'juniors,' i.e. all who wear stuff gowns and sit outside the Formerly, patents of precedence were granted to K.C. and Q.C. by the crown, but that custom has been in disuse for the last thirty years. K.C. rank next in precedence after the leaders of the bar, the Attorney-General and

are called K. for no other re. their full sty counsel learne

may not hold briefs in any cause against the crown without special licence. It is the almost inviolable etiquette of the profession that K.C. should never appear with a brief in a civil action without a 'junior.' the only exception to this rule being when a 'leader,' or K.C., is retained for a plaintiff suing in forma pauperis (q.v). Even in criminal cases it may be stated as a general rule that a leader to be at once filled by the admission cannot hold a brief without a junior.

Chancery silks attach themselves identify the prisoner so turning K. E. to one particular judge of the with those of his accomplices who Chancery Division and so gain a remain in the dock. See Harris's monopoly of the work there. Occasionally they become what is termed specials,' when they will undertake to go into any other court for a special fee of fifty guineas or more. The 'leader' has the conduct of the cond the case, but the junior settles the pleadings, writes the 'Advice on Evidence,' and settles interrogatories or other documents in the interlocutory proceedings. In court the leader frequently invites the junior to examine the first witness. often it happens that the junior conducts the case almost throughout, the leader being engaged elsewhere.

King's County, an inland co., prov. of Leinster, Ireland, bounded on the W. by the R. Shannon. The surface on the whole is fiat, the N. part being occupied by the Bog of Allen, but the Slieve Bloom Mts. lie along the border is between K. C. and Queen's County,

chiefly used for sheep. Oats, barley, rye, potatoes, and turnips are grown, and cattle, sheep, pigs, and poultry bred. The chief towns are Tullamore (co. tn., pop. 4500) and Parsonstown or Birr. The county sends two members to parliament, and has an area of 772 sq. m. and a pop. (1911) of 56,769.

King's (or Queen's) Evidence. Where one of several persons jointly charged with a crime gives evidence so as to secure the conviction of his accom-plices, such evidence is called plices, such evidence K. E. It is customary for the commit the weak, to any evidenc ' to hold co-defendant who can and will give such evidence as will supply the want of sufficient evidence for the prosecu-tion. At the trial, however, it is neces-sary to obtain the sanction of the judge to such a course. It is to be observed that counsel for the prosecution may, where necessary, obtain the consent of the judge at the trial to put one of the co-defendants in the box, and thus secure his acquittal, even without any suggestion of such a course from the committing magistrate. In any case, K. E. is to be looked at with suspicion. It is the practice though not legally necessary, to require the evidence of an accomplice to be corroborated in some material part by independent evidence, and such confirmatory evidence, and such confirmatory evidence ought to go far enough to life in the 5th century at Alexandria

with those of his accomplices who remain in the dock. See Harris's Principles of Criminal Law: Russell On Crimes; Archbold's Practice.
King's Evil, an old and popular name for scrotula. The origin of the

term lies in the superstition that a royal personage was endued with healing power directed particularly to this form of tuberculosis. The power was claimed by the royal houses of England and France, and was attributed to the use of 'chrism,' or oil of peculiar sanctity, in the coronation ceremonial. From the time of Edward III. the custom of touching afflicted persons was maintained until the time of the Stuarts; under the Hano-verians the actual custom became obsolete, although the Stuart pro-tenders practised it in their exile and during their invasions of this country. The medical term for scrofula tuberculous lymphadenitis. It is characterised by enlargement of the lymphatic glands of the neck, accompanied by the formation of tuberculous matter, which may eventually lead to suppuration. See Scrofula.

Kingsford, William, (1819-98), an historian, born in London. At the age of seventeen he enlisted and went to Canada with his regiment, but returned home in 1840. He qualified as an engineer at Montreal, and worked In connection with the Grand Trunk and other railways, and in 1872 was appointed dominion engineer in charge of the harbours of the great lakes and the St. Lawrence, a post he held until 1879. After this he devoted himself to the compilation of his magnum opus, a History of Canada, the first volume of which appeared in 1887, the tenth and last in 1898.

Kingsley, Charles (1819 - 75), a novelist, was

lege, London, Cambridge, and in 1842 became curate, and two years later rector of Eversley, Hampshire. In 1859 he was appointed one of the queen's

and in 1873 canonry of younger days Maurice in t

movement, and it was his interest in the poor and the working classes that led him to write I cast, 1848, and Allon Locke, 1850, in which books, with a virile pen, steeped, however,

and the Roman empire were struggling for mastery. Westward Ho, 1855, his most popular work, is a stirring story of Elizabethan heroes, and it introduces the fight with the Spanish Armada. Two Years Ago, 1857, is a story of the Crimean War. He published the delightful Water Babies in 1862 and who was the work the best of the Crimean War. 1863, and, subsequently, other books. He also wrote poetry, and some of his verses have the true poetic ring, notably The Three Fishers, The Tide Wave, and the well-known When all the world is young, lad. K's power of characterisation was weak. His characters are either lay figures or un-original, and when original, they are usually exaggerated. His one outstanding creation is Miriam in Hypatia. He had a great command of language, and his scene-painting is admirable. In few English authors can there be found finer pictures than are contained in his books, whether of English landscape, as in Yeast, or of wretched hovels, as in Allon Locke, of Alexandria and the desert, as in Hypatia, or of the downs of Devontine and the colivida of the wrettern and the colivida of the wrettern. Hypatia, or of the downs of Devonshire, and the solitude of the great S. American forest which Amyas Leigh and his followers traverse, as in Westward Ho, or of the fenlands, as in Hereward the Wake. K.'s daughter, Mary St. Leger Kingsley, who married William Hamson, is well-known as a newalist under her near known as a novelist under her penname of Lucas Malet. Her principal stories are: The Wages of Sin, 1891; The Carissima, 1896; The Gateless Barrier, 1900; and The History of Sir Richard Calmady.

Kingsley, Henry (1830-76), a novelist, a brother of Charles K., went to the Australian goldfields in 1853. After his return five years later, he began to write novels, the first of which, Geoffrey Hamlyn, appeared in 1859. From 1864 he edited the Edinburch Dolly Review and acted several parts of the state of the sta burgh Daily Review, and acted as war correspondent for the paper during the conflict between France and Germany (1870-71). His masterpiece is

Ravenshoe, 1861.

King's Lynn, Lynn Regis, or Lynn, a municipal and parl. bor., market th.,

acres in extent; there are two docks. and good roadsteads between them and the Wash. The mussel fishery is important. There are boatbuilding yards, manufs. of sails and rope, iron foundries, corn mills, and breweries. Pop. (1911) 20,205. Kingsmill Islands, see Gubert

ISLANDS.

King's Mountain: 1. A banking tn.

in the days when the Christian Church | Carolina, U.S.A., about 33 m. from and the Roman empire were strug-Charlotte. It has cotton-mills and is gling for mastery. Westward Ho, 1855, | the seat of the Lincoln Academy. Pop. (1910) 2100. 2. A mountain ridge between N. and S. Carolina, where the English and Loyalists, under Ferguson, were defeated by the Ferguson, were defeated American backwoodsmen, American backwoodsmen, led by Campbell, Shalby, and others (1780). See Draper, King's Mountain and its Heroes, 1881; M'Crady, South Carolina in the Revolution, 1775-80, 1901. King's Norton, a par and tn. of Worcestershire, England, 5 m. S.W. of Birmingham. There are manufs. of

paper, screws, chocolate, cocoa, ctc., and metal rolling mills. Bourneville, the model village, lies within the parish. Pop. (1911) with Northfield,

81,163.

King's Printers are those who are entitled to the special privilege of being allowed to print any, or even all, of the books in which the crown enjoys copyright. They also print copies of private acts, proclamations, orders in council, etc. They are appointed by patent for the three kingdoms, England, Scotland, and Ireland, and the custom dates back to the 16th century, the first K. P. pro-bably having been Grafton in 1547. Another famous one was Eyre in 1767, the founder of the firm of Eyre & Spottiswoode, His Majesty's printers, which has several times received

the patent. King's Proctor represents crown (q.v.) in admiralty and matri-The Treasury solicimonial causes. tor holds the office at the present day, and that functionary is generally a barrister. He intervenes to stop decrees nisi in divorce being made absolute on the ground that all the material facts have not been before the court, or where he detects collusion, or at any stage of divorce proceedings where it would be against morality to dissolve the marriage tie. He has the right to see letters, briefs, and all other documents in divorce

judge has dissolution

or nullity suit to order all necessary papers to be sent to the K. P. that the latter may under the direction of the Attorney-General, instruct counsel to argue any point in the case which the judge thinks ought to be fully argued. The court may order the parties or any of them to pay the costs of intervention.

King's Remembrancer, see RE-

MEMBRANCER.

Kingsthorpe, a par. and vil. 1½ m. from Northampton, England. Pop. (1911) 14,000.

Kingston: 1. A seaport and the of Cleveland and Gaston cos., N. cap. of Jamaica, West Indies,

situated in the S.E. of the island in royal harbour, which may be entered situated in the S.E. of the island in the co. of Surrey. A disastrous earthquake occurred in January 1907, when nearly 2000 lives were lost. Pop. 40,000. 2. A city of Ontario, Canada, situated in Frontenac co., on the N.E. of Lake Ontario at the mouth of the Cataraqui R. It has appride the steambout compunion. considerable steamboat communica-tion with ports on the St. Lawrence, the Rideau Canal, the Bay of the Rideau Canal, the Bay of Quinte, etc. There are shipbuilding yards, locomotive works, factories, etc. It is the seat of a Roman Catholic bishop and also a great educational centre. Pop. 18,000. 3. A city of New York, U.S.A., and cap. of Ulster co., situated on the Hudson R. Its chief industry is the manufacture of tobacco and cigars; boatbuilding, coment works, brickyards, are other industries, and stone is quarried in the neighbourhood. Pop. (1911) 25,908. 4. A bor. of Pennsylvania, U.S.A., in Luzerne co., situated on the r. b. of the Susquehanna R. The manufactures are silk goods and besieve and there are silk goods and hosiery, and there are railway works and machine factories. Coal is extensively mined in the neighbourhood. It is the seat of the Wyoming Seminary. Pop. (1910) 6449.

Kingston, William Henry Giles (1814-80), an English writer, born in London, but was a resident of Oporto, where he wrote articles for the Portuguese newspapers. These articles were instrumental in coneaty be-

Among Whaler, 1851; The Three Midshipmen, 1873; The Three Admirals, 1878; Kid-napping in the Pacific, 1879. Kingston-upon-Hull, see Hull.

Kingston-upon-Thames, a municipal bor, and market tn. of Surrey, England, 11 m. S.W. of Charing Cross. It is a residential suburb, possessing fine promenades and public gardens on the river bank. There are large on the river bath. Inter a large market gardens, and in the town flour mills, breweries, oil works, and brickyards. Kingston is historically interesting; several Saxon kings were crowned here, and the coronation stone, which is supposed to have been used for the throne, now stands in the market place. The Saturday market was granted by James I., and the Wednesday market by Charles II. A fair, held in November, was granted by Henry III. Pop. (1911) 37,977.

Kingstown: 1. Formerly Dun-leary, a tn. and scaport of Dublin, Ircland, situated on Dublin Bay, 6 m., from the city. It is the mail-packet station for communication with Liverpool and Holyhead, and has a Madras Infantry, and became captain

by vessels drawing 24 ft. at any state of the tide. K. is a popular holiday resort, possessing three yacht clubs; it is a fishing centre, and has an export trade in cattle. Pop. (1911) 17,227. 2. A scaport and cap. of St. Vincent, West Indies, situated on the S.W. coast. It has considerable

export trade in spices, sugar, cocoa, spirits, etc. Pop. 6000.

Kingsway, a thoroughfare which connects Holborn with the Strand. It was so called in compliment to the late King Edward VII., who opened it on Oct. 18, 1905. It runs from High Holborn, opposite Southampton Row, to Aldwych, and is 1800 ft. long and about 110 ft. wide

long and about 110 ft. wide. Kingswinford, a par. and vil. of Staffordshire, England, 3 m. W. of Dudley, with coal mines and manufs, of nails, bricks, laths, etc. Pop.

(1911) 20,808.

Kingswood, a par. and vil. of Gloucester, England, 31 m. from Bristol, with manufs. of boots, elastic, pins, etc., also woollen and silk in-dustries. There are interesting abboy ruins in the vicinity. Pop. (1911 12,705.

King-tê-chen, a tn. of China in the prov. of Kiang-si. It stands on the R. Chang, near Fu-liang-Hien. There are 3000 porcelain furnaces. The Kau-ling Hills in the district have given the name to Kaolin or China clay used in the proceeding manufacture. clay, used in the porcelain manuf. Pop. 500,000.

Kington, a tn. of Hereford, England, situated on the Arrow. It has tanyards and malt-houses, iron foundries, and nail factories. (1911) 1819.

Kingussie, a tn. of Inverness-shire, Scotland, 55 m. N.N.W. of Perth. It is a favourite summer resort, 2000.

King William's Town, locally called Kings,' a tn. in Cape of Good Hope, S. Africa, situated on the Buffalo R. in the midst of an agricultural district. It is a busy trade centre and the headquarters of the Cape Mounted Police. There are manufs. of jams, leather, candles, soap, etc. sweets, Pop. 9500.

Kin-kiang, see Chin-chiang-fu. Kinlochleven, a tn. at the head of Loch Leven, Argyll, Scotland, is of recent growth, and owes its existence to the development of the water-power of the district. See Leven.

Kinloss, a vil. of Ontario, Canada, situated in Bruce co., close to Kin-

Armenia and Kurdistan, through publishing his results in a Narrative of Travels in Asia Minor, Armenia,

of Travels in Asia Minor, Armenia, and Kurdislan in 1813-14. He was envoy to Persia (1824-30), and took part in the hostilities with Russia.
Kinning Park, a dist. of Lanarkshire, Scotland, in the par. of Govan, situated on the Clyde. It was a country resort for the Glasgow citizens until 1860, when the extension of Glasgow harbour and docks caused it to become a residential part to become a residential part.

Kino, an astringent drug obtained from certain trees on the W. coast of Africa and in India. The substance recognised as K. at the present day is the product of *Pierocarpus mar* supium, a tree found in Ceylon and Southern India. It is obtained by Southern India. It is obtained by making incisions in the trunk and collecting the hardened exudation. It consists of dark red glistening fragments which are moderately soluble in water, but are easily soluble in alcohol. The properties of the drug are due to the presence of kino-tannic acid and pyrocatechin. It is a useful astringent, and was formerly used as a gargle for sore throat.

Kinprili, see KOPRILI.

Kinross, the cap of the co. of Kinross-shire, Scotland, situated 8½ m. from Dunfermline. There are several woollen mills, and the manufacture of linen is carried on. The town is ancient, and has interesting ruins; it

was the principal residence of Alexander III. Pop. (1911) 2618.
Kinross of Glasclune, John Blair
Balfour, first Baron (1837-1905), Lord President of the Court of Session in Scotland, born at Clackmannan. He was called to the Scotlish bar in 1861, and rose to be the foremost advocate in Scotland. He was appointed Solicitor-General for Scotland in 1880 and in 1881 became Lord-Advocate, again holding the office in 1886 and from 1892-95, and during the last period he took an active part in carrying through the House of Comcarrying through the House of Commons the Local Government Act for Scotland, 1894. In 1899 he succeeded James P. Bannerman as Lord President of the Court of Session, and in 1902 was raised to the peerage.

Kinross-shire, an inland co. of Scotland, with an area of 87 sq. m. It is bounded on the N. and W. by Perthshire, on the S. and E. by Fifeshire. Its surface is well cultivated—barley and oats are grown, and cattle and sheep are reared. In the S.E. is Loch Leven, which is drained by the R. Leven; the loch is noted for its many historical associations. Takk N = 1 historical associations. In the N. and W. are the Ochil Hills, and eastward are the Lomond heights. The manu-

in 1818. He made numerous jour- factures of the county are linen, neys in Persia, and also travelled plaids, and tartans; brewing is also carried on. Cap., Kinross.

(1911) 7528.

Kinsale, a seaport tn. of co. Cork, Ireland, situated on Kinsale Har-bour, 14 m. S.W. of Cork. It is built partly on the slopes of Compass Hill. and the streets are narrow and steep. It is frequented by summer visitors, and has important fisheries, being the

headquarters of the South of Ireland Fishing Company. Pop. (1911) 4200.

Kinsale Harbour, an estuary of the R. Bandon in co. Cork, Ireland. It has an average width of half a mile, and extends 2 m. from the town of

Kinsale.

Kin-sha-chiang, or Kinsha-kiang, see Chin-sha.

Kinston, atn. of N. Carolina, U.S.A., and the co. seat of Lenoir co. It is situated on the Neuse R., about 26 m. S.E. of Goldsboro' by rail. Pop. (1910) 6995.

Kintyre, or Cantire, a peninsular dist. of Argyllshire, Scotland, situ-ated between the Firth of Clyde and ated between the First of Clyde and the Atlantic, and joined to the Argyll mainland by the isthmus of Tarbert. It is 43 m. long, with an average width of 6½ m.; the principal town is Campbeltown. The inhabitants are engaged in the fisheries, agriculture, and stone quarrying. The Mull of and stone quarrying. The Mull of Kintyre is a headland at the southern extremity; a lighthouse is placed here

extremity; a lighthouse is placed here with a light visible 24 m distant. Kiöge, a tn. of Denmark, on the Kiöge Bay, E. coast of Zeeland, in the prov. of Prasto and 21 m. S.W. of Copenhagen. Pop. 4500.

Kioto, or Ky-oto, an important city of Japan, 329 m. from Tokyo. It was founded in 793, and was from that time until the revolution of 1868. that time until the revolution of 1868 the capital of the Japanese empire. Consequently it contains many interesting halfelines, among which are the Mahade' It has, a herey mass of halfelines covering the rate 16f 26 acres; the Doshisha, a Christian university under the auspices of the American Board Mission; the Imperial Uni-versity, founded in 1875; the Kitano Tenjin, a temple dedicated to Tenjin Sama, which contains the thirtysix genii of poetry (the usual adorn-ment of Shinto temples); and the San-ju-san-gen-do, the temple of the 33,333 images of Kwannon, the goddess of mercy, founded in 1132, the grounds of which contain the Daibutsu, or Great Buddha, and a fine art museum. Bleaching and dyeing are successfully carried on, for K. abounds in clear water, and the city is noted for its manufactures of silk, brocades, embroidery, velvet, porcelain, bronze, and other artistic products. Pop. 442,462

Kiowas, a tribe of N. American the Second Jungle Book. Indians which, when the white men masterly stories of animal first visited the Great Plains, in-considered by many K.'s b habited the region round the head of His Barrack-room Ballads, w the Platte R., but they have been traced as far to the N.W. as the Three Forks of the Missouri. In more modern times they were buffalo hunters and brave warriors, but by the Medicine Lodge Treaty in 1867 they gave up their free life and agreed to be assigned to their present reserva-tion in the Indian territory. They are generally regarded as an independent stock, but have often been classed with the Shoshonis on account of the similarity of their language to the Shoshonean languages. They number about 1000.

Kipling, John Lockwood (1837-1911), an English author and artist. and father of the celebrated novelist, Rudyard K., born at Pickering. He was educated at Woodhouse Grove, and entered the Indian Civil Service in 1867. He was architectural sculptor at the Bombay School of Art 1865-75, principal of the Mayo School of Art and curator of the Central Museum at Lahore, 1875-93. He has published Beast and Man in India, 1901, a collection of Hindu and Mohammedan folk-tales, and has also constituted in the contract of executed illustrations for some of his son's books, viz. Kim and the First and Second Jungle Books.

Kipling, Rudyard (b. 1865), an Eng-

what highly-coloured picture of his life there is presented in Stalky and Co. (1899). At the age of seventeen he returned to India and became sub-editor of the Lahore Civil and Military Gazette. In 1886 appeared his Departmental Diffics, a volume of light satirical verse; in the following year, Plain Tales from the Hills; and during the next two years, Soldiers These These These Stalk Programmes These Programmes These Programmes These Programmes These Pro ng year, Plain Tales from the Hills, and during the next two years, Soldiers Three, The Story of the Gadsbys, In Black and White, Under the Deodars, The Phantom Rickshaw, and Wee Willie Winkie. These tales quickly became famous in India, and it was recognised that a new force had come into the literary world. During the years 1887 to 1889 K. travelled through India, China, Japan, and America. and thence to During the years 1887 to 1889 K. travelled through India, China, Japan, and America, and thence to England, where he arrived to find Pop. 7227. 2. A vil. in the canton of himself famous. His travel sketches twere published in 1899 under the title of From Sca to Sca. In 1892 K. married Miss C. S. Balestier, the sister of W. Balestier, in conjunction with six Jesuit colleges in his native of W. Balestier, in conjunction with eix Jesuit colleges in his native whom he wrote *The Naulahka* (1891), country, and from 1635 to 1643 In 1894 a new vein was opened up by lectured on mathematics at the In 1894 a new vein was opened up by lectured on mathematics a his Jungle Book, followed in 1895 by Collegio Romano in Rome.

These masterly stories of animal life are considered by many K.'s best work. His Barrack-room Ballads, with which was published the fine 'Ballad of East and West,' are excellent examples of and West, are excellent examples of strong, vigorous verse set in realistic language. In addition to the works mentioned above, the following are K.'s chief works: The Light that Failed, 1891 (dramatised in 1905); Life's Handicap, 1890; Many Inventions, 1892; The Seven Seas, 1896; Cantaine Courageous 1807; The Davis Captains Courageous, 1897; The Day's Capians Courageous, 1897; The Day's Work, 1898; Kim, 1901; Just-so Stories for Little Children, 1902; The Five Nations, 1903; Traffics and Discoverics, 1904; Puck of Pook's Hill, 1906; Actions and Reactions, 1909; Rewards and Fairies, 1910; History of England (with C. R. L. Fletcher), 1911. The range of K.'s powers is no less extraordinary than their quality. His work is unequal: it has been said. His work is unequal; it has been said of him that he has written some of the best and some of the worst poetry in the English language. But he has the power although

are obscu of Soldiers T of his tales

dignity of joie de vivr work render him one of the most interesting figures in modern litera-

ture. Where he perhaps excels is in the short story, as he is one of the very few masters of that branch of fiction in the English language. See Richard le Gallienne, Rudyard Kipling: A Criticism; 'Mr. Kipling's Stories' in Andrew Lang's Essays in Little, etc.

Kippis, Andrew (1725-95), a Non-conformist minister, born at Nottingham, and was educated for the ministry at Northampton, and in 1753 he became minister of a church in Westminster. He wrote for several magazines, founded the Annual Register, wrote several biographies, among them that of Dr. Doddridge, under whom he had studied, and edited the Biog. Brit., 2nd edition.

Kipu, see QUIPU. Kiratpur, a tn. in the Bijnaur dist., United Provinces, India, 42 m. N.E. of Meerut. Pop. 15.000.

Edipus Egyptiacus (1652-55) promoted the study of Egyptian hieroglyphics, and his Prodromus Coplus barley, potatoes, and opium being the (1636) of the Coptic tongue. A wide chief products. Pop. (estimated knowledge of ancient and modern [5,000,000]. Italy is revealed by his Latium (1669), whilst those hasty judgments and in-accuracies of which he was often guilty are patent in his China illustrata (1667).

Kirchhoff, Gustav Robert (1824-87),

Germany, 16 m. S.E. of Stuttgart. It manufs. textile fabrics. Pop. 9669. 2. A vil. of Baden, Germany, close to Heidelberg. Pop. 5609.

Kirchhoff, Gustav Robert (1824-87),

a German physicist, graduated Ph.D. from the university of his native town, Königsberg, in 1847. He held the chair of physics successively at Breslau (appointed in 1850), Heidel-berg (1854), and Berlin (1875), but his professorial duties were never allowed to interfere with his private research. In collaboration with Von Bunsen he evolved the theory and practice of spectrum analysis, and indicated how the prism may be used to establish the chemical composition of celestial bodies. His Vorlesungen über mathematische Physik (1876) contains an original treatment of dynamics.

Kirchhoff's Laws, see Electricity

AND MAGNETISM.

Kirchhörde, a vil. in the prov. of Westphalia, Prussia, about 4 m. S. of Dortmund. The inhabitants are en-

portmund. The inhabitants are engaged in coal-mining and the manuf. of tin. Pop. about 13,500.

Kirghiz, The, are a nomadic people belonging to the Mongolian-Tartar family and divided into Kara-Kirghiz and Kirghiz Kazaks. The former recognised Russian suzerainty in 1864 and the latter in 1819. The Kara-Kirghiz dwell in the highlands between the rivers Issik-kul and Kuen-Lun and wander from eastern borders of Ferghana across to the Muzart. They number in all about 400,000, and are divided into two main sections, the Sol in the W. and the On in the E. The Kirghiz and the On in the E. The Kirghiz Kazaks roam on the steppes in the Russian provinces of Syr-Daria, Ural, Turgai, Akmolinsk, and Semipalatinsk. Both tribes are nominally Sunnites, but in reality they believe in an evil spirit, Shaitan, besides a good spirit. Physically, they resemble the Mongolians, but their speech is our entire They breed for speech is pure Turki. They breed fat-tailed sheep, hardy horses, camels, goats, and oxen, and cultivate wheat and millet. They number about and millet. They 340,000. Kiria, see KERIYA.

Kirin, the cap. of the prov. of the same name, situated on the Sungari, 225 m. N.E. of Mukden. Pop. (esti-

mated) 100,000.

Kirjath-jearim, a tn. in Palestine, situated in Judah, and identified by some with 'Erma,' and near Here the ark rested Bethshemesh. until taken up to Jerusalem.

Kirjath - sepher, according to Judges i. 11, was the older name of the town which was named by the

Hebrews Debir.

Kirk, Sir John (b. 1847), secretary of the Ragged School Union since 1879, and actively identified with many forms of philanthropic work, especially that affecting children. Knighted in 1907.

Kirk-Agatch, a tn. of Asia Minor, 52 m. N.E. of Smyrna. It manufs. cotton goods. Pop. 20,000.

Kirkburton, a tn. in the W. Riding of Yorkshire, England, about 5 m. S.E. of Huddersfield. It manufs. woollen goods, and coal mining is carried on. Pop. (1911) 3410. Kirkby-in-Ashfield, a par. and vil.

in the co. of Nottinghamshire, England, 12 m. N.W. of Nottingham. In the vicinity are coal mines.

(1911) 15,379.

Kirkby Lonsdale, a market tn. in the co. of Westmorland, England, on the R. Lune, 12 m. S.E. of Kendal.

Pop. (1911) 1524.

Kirkby Moorside, a market tn. in the N. Riding of Yorkshire, England, on the R. Dove, 6 m. W. of Pickering. It manufs. iron and brass ware and agricultural implements. Pop. (1911) 4870.

Kirkby Stephen, a market tn. in Westmorland, England, on the R. Eden, 10 m. S.E. of Appleby. Copper, lead, and iron are found in the vicinity. Pop. (1911) 4504.

Kirkcaldy, a seaport tn. of Fifeshire, Scotland, situated on the Firth of Forth, 15 m. N. of Edinburgh. The town itself has been called the Lang Toun, its main street being about 4 m. long. This town is the centre of linoleum manufacture, and also is engaged in bleaching, linen manufacture, engineering, iron-founding, and the manufacture of pottery. It was created a royal burgh about the year 1450, and with Kinghorn, Burntisland, and Dysart sends one member to parliament. It was the member to parliament. It is birthplace of Adam Smith. (1911) 39,600.

Kirin, or Girin, a prov. of Man-churia, to the N. of Korea, having an area of about 110,000 sq. m. The soldier and politician, was early won

over to the Protestant party, and having assisted in the murder of Cardinal Beaton (1546), took refuge in St. Andrews Castle, and, on its surrender to the French, became a prisoner of the enemy and was confined in St. Michael's Mount, Normandy. Soon, however, he made good his escape, and after serving with distinction in the French army, returned to Scotland in 1557. At home he proved zealous in the cause of Reformation, was implicated in the murder of Rizzio, and having joined the nobles against Bothwell, received the surrender of the queen at Carberry Hill (1567). Her defeat at Langside in the same year was largely the outcome of his able strategy, but henceforward, prevailed on, it seems, by the plausible arguments of the subtle Maitland of Lethington, he became Queen Mary's stalwart champion. As governor of Edinburgh Castle he proceeded to fortify it for the royalist faction. In 1572 he broke off regulations with the Regent Morton, preferring to stand 'stiff upon his honesty and not betray his friends. He surrendered on June 3, 1573, and was executed at the cross of Edinburgh.

Kirkcudbright, the co. tn. of Kirk-cudbrightshire, Scotland, situated on the l. b. of the Dec. It has the best harbour in the S. of Scotland, and contains an old church and several other ancient structures. Pop. (1911)

2191.

Kirkeudbrightshire, a maritime co. in the S. of Scotland. The coast is containing

> smugglers. y is mounbeing Mt. chief rivers

is quarried in the county, and the pasturage is good, the rearing of cattle—especially of the polled Galloway breed—forming one of the industries. K. is also noted for its honey. The county sends one member to parliament. Area 899 sq. m. Pop. (1911) 38,363.

Kirkdale Cave, a cavern in a lime-stone rock in the North Riding of Yorkshire, about 11 m. W.S.W. of Kirkby-Moorside. This cave, which was discovered in 1821, contains the fossil remains of animals, among which are the hyuna, tiger, and

hippopotamus.

Kirkee, a tn. about 41 m. N.W. of Poona, India. It is engaged in the manuf, of ammunition on a large scale. Pop. 11,000.

Kirkham, a market tn. in the co. of Lancashire, England, 8 m. W.N.W. of Preston. It is engaged in the cotton and linen manuf. Pop. (1911) American astronomer, was professor 3793.

Kirkintilloch, a tn. in the co. of Dumbarton, Scotland, 7 m. N.E. of Glasgow. It has coal mines and ron foundries, and manufs. chemicals. Pop. (1911) 11,932.

Kirk-Kilisse, a tn. of European Turkey, situated about 33 m. E. by N. of Adrianople. Near this town was fought the first great battle between the Bulgarian and Turkish forces during the Balkan War of 1912-13 (q.v.). Pop. about 16,000.

Kirkless, a vil. in the W. Riding of Yorkshire, England, 4 m. N.E. of Huddersfield. Here are situated the ruins of a Cistercian nunnery of the

12th century.

Kirkley, a vil. on the coast of Suffolk, England, forming a suburb

of Lowestoft. Pop. (1911) 6550.

Kirkliston, a vil. in the co. of Linlithgowshire, Scotland, on the R. Almond, 10 m. W. of Edinburgh. It has distilleries. Pop. (1911) 5296.

Kirkmaiden, a par. in Wigtown-Kirkmaiden, a par. in Wigtown-shire, Scotland, is situated on Luce Bay and in the peninsula of Galloway. It is the most southerly point of Scotland, and is mentioned as Maidenkirk in the expression sig-nifying from extreme S. to extreme N. of the country, i.e. from 'Maiden-kirk to John o' Groats.' Pop. (1911) 1789.

Kirkoswald, a vil. in the co. of Ayrshire, Scotland, 4 m. S.W. of Maybole. This village contains the tombs of the ancestors of the poet Burns, who himself resided here for a year. Pop.

(1911) 1685.

Kirkpatrick, a vil. in Saskatchewan, Canada, 10 m. W.S.W. of Prince Albert. Pop. 1500.

Kirk-session, see PRESBYTERIAN-

Kirkstall, a vil. in the W. Riding of the co. of Ventraline England 3 m. N.W. c. the ruins of

the 12th ce 48,303.

Kirksville, a tn. in the co. of Adair, Missouri, U.S.A. It is situated on

two railways, and manufactures iron goods. Pop. (1910) 6347.

Kirkton, or Kirkton-in-Holland, a tn. in the co. of Lincolnshire, England, 4 m. S.S.W. of Boston. Pop. (1911) dist. 10,167.

Cathedral of St. Magnus, dating from medieval times, the carl's castle, and bishop's palace. K. possesses an excellent harbour. Distilling is engaged in. Pop. (1911) 3810.

Kirkwood, Daniel (1814-95), an of mathematics at Delaware College (1851), and in 1856 accepted a similar lation of Arabic, Syriac, E post in the University of Indiana. The Greek, and Latin Texts, 1611. unequal distribution of asteroids had long been observed, and K. is to be congratulated on having advanced a very reasonable hypothesis in explanation of this phenomenon. asserted that the gaps in their dis-tribution was due to the attractive force of Jupiter, inasmuch as the asteroids, which ought to occupy those spaces, would revolve in periods closely related by the law of commen-surability with that of Jupiter. K. also pointed out that the magnitude of the interval between any two planets was incompatible with Laplace's nebular hypothesis. Between 1867 and 1888 he published Comets and Meteors and Asteroids. Kirman, see KERMAN.

Kirmanshah, see KERMANSHAH. Kirn: 1. A tn. in the Rhine prov., russia, 40 m. S.W. of Coblenz, Prussia, 40 m. S.W. of Coursell, on the Nahe. It is engaged in the woollen manufacture. Pop. 7103. 2. A watering-place in the co. of Argylshire, Scotland, on the Firth of Clyde, adjacent to Dunoon. Pop. (1911) 1400.

Kirriemuir, a par. and market tn. of Forfarshire, Scotland, stands on the Gowrie Burn, 5 m. W.N.W. of Forfar. It has manufs, of brown linen. and is celchrated as being the 'Thrums' of Sir J. M. Barrie's novels and the author's birthplace. Pop.

(1911) par. 5391.

Kirsanov, a dist, and tn. of Russia, 60 m. E. of Tambov, and trades in grain, hides, and cattle. Pop. 11,000. Kir-shehr, a tn. in Anatolia, Asia Minor, 85 m. S.E. of Angora, and stands at an altitude of 3235 ft. Noted for cornets. Pop. 900.

Noted for carpets. Pop. 9000.

Kirstein, Frederic (1770-1840), a celebrated goldsmith and chiseller, born at Strasburg. He contributed largely towards the development of his art, and decorated in a variety of cups, different designs, plaques, vases, etc., in precious metals. He exhibited at the Salons of 1810, 1827, and 1834. His son, Frederic, who was his pupil, bord in 1805, became a noted sculptor. He entered the Ecole des Beaux-arts, Paris, in 1825. Amongst his best known works are 'Laura and Petrarch,' the statue of Erwin de

Steinbach in the Strasburg Cathedral,
La Mélodie et l'Harmonie, etc.
Kirsten (or Kirstenius), Peter (or
Petrus) (1577-1640), a physician and
Oriental scholar. He studied in Gerbecame physician to Queen Ch: and medical professor at Upsal.

Egyptian.

Kiryu, a tn. in the prov. of Kotsuki, Japan, 60 m. W.N.W. of Tokyo; has manufs. of silk, gauze, and crape. Pop. 24,000.

Kishangarh, a tn. in India, the cap. of the native state of the same name.

Pop. 14,800.

Kishinev, the cap, of the Russian prov. Bessarabia, stands on a trib. of the Dniester, 120 m. N.W. of Odessa. The chief exports are grain, hides. tallow, and tobacco. K. was the scene of serious anti-Semitic riots in 1903. Pop 126,000. Kishm, or Tavilah, a barren island

in the Strait of Ormuz, Persia. It is about 70 m. long and 4 m. broad, and has a range of salt-hills. Kishm (ancient Oaracta), the chief town, is the residence of a sheikh. Pop. 15,000.

Kishon, a riv. of Central Palestine, flows through the plain of Esdraelon in a north-westerly direction, and enters the Mediterranean 6 m. S.S.W. of Acre. It is known to the Arabs as

El-Mukatta.

Kishoregunge, or Kishoriganj, a tn. Bengal, British India, in the Maimansingh dist. Pop. 15,000. Kis Körös, a tn. in Hungary, 28 m.

S.W. from Kecskemet, is celebrated as the birthplace of Petöfi. Pop. 10,000. Kiskunfélegyháza, sce FÉLEGYHAZA.

Kiskunhalas, see HALAS.

Kiskunmajsa, a tn. in Hungary, lies in the comitat Pest-pilis-solt-kis-kun. 25 m. N.W. from Szegedin. 15,000.

Kismayu, a port in British Africa, stands near the mouth of the Juba R., in a district inhabited by Somali tribes; it has an excellent harbour. Pop. 3000.

Kismet (Arabic kismeh and Persian kusmut), meaning 'fate,' a word made use of by Mohammed when he preached in the Koran the duty of submission to all that God has preordained. believed that a man's every action was predestined, yet he never suggested the folly of struggling against an adverse doom. The doctrine of an adverse doom. The doctrine of K. has prompted Mohammedans to utmost heroism and fortitude in the cause of their religion.

Kiss, a form of salutation, or an expression of reverence or love, which consists in pressing or touching with the lips the lips, cheek, hands, or feet of another. Newly-appointed carof another. Newly-appointed car-dinals kiss the sandal on the pope's Oriental scholar. He studied in Geringht foot as a symbol of veneration, many and travelled widely in Europe. Invited to Sweden by Oxenstiern, he is still a part of the ritual of the mass · 'id Roman Churches.

kissing is restricted,

st in French Guinea.

Kissingen, a popular Bavarian later came his crowning success in

are used in cases of dyspepsia, gout,

ctc., and large quantities are exported annually. Pop. 5830.

Kistna, or Krishna, a dist. of Madras, British India, contains the delta of the R. Kistna; the chief town is Masulipatam. Pop. 2,155,000.

Kistna, or Krishna, a river of S. India, rises in the Western Ghats, 40 m. from the Arabian Sea; at its source is an ancient temple, to which large numbers of pilgrims resort.
From here the river flows through
the Bombay Presidency and drops
steeply from the table-land of the
Decean, receiving its two chief tributaries, the Bhima and the Tunga-bhadra. It forms the boundary between the Nizam's dominions and the Madras Presidency, and enters the Bay of Bengal by two mouths, making an immense delta. Its total length is 800 m., but its course is too rocky and rapid for navigation.

Kisujazallas, a tn., with magistracy, in Hungary, 45 m. W.S.W. of Debreczen. Pop. 12,500.
Kisumu, a prov. of British E. Africa, governed by a sub-commissioner, under the control of the chief commissioner, who is resident at Zanzibar; the chief town is Kisumu.

Kit, term used for a soldier's outfit. A recruit, on joining the army, is provided gratis with underclothing, razor, brushes, towels. mess-tin, knife and fork, and cleaning materials, and these things constitute his K. It is his duty to keep them in good order and to buy new articles as occasion arises. In popular language uniform and other outward accoutrements are often erroneously included in his K.

Kita, a tn. of the French Sudan, in Senegambia, N.W. of the Niger. It is a fortified military station.
Kitchener. Horatio Herbert, Viscount of Khartoum and Aspall, in Suffolk (b. 1850), born in Ireland, the eldest son of the late Lieut.-Col. H. H. Kitchener. After studying at Wool-wich, he entered the Royal Engineers He was engaged on the Palestine Survey (1874-78), and then on that of Cyprus (1878-82), after which he entered the Egyptian Cavalry, and took part in the Sudan

of the Egyptian arm that capacity he recov

1896, for which he wa general and K.C.B., and two years 'moddingen), names given to what

Egypt in the expedition which he organised against the power of the Khalifa. In April 1898 he defeated the dervishes at the Atbara, and in the following September he won the decisive victory of Omdurman, cap-turing Khartoum, and completely overthrowing the power of the Khalifa. For these services he was raised to the peerage, and parliament voted him the sum of £30,000; he was presented with the freedom of the City of London, and a sword of honour, and he received the degree of D.C.L. from Oxford University. During his brief stay in England at this time he raised, by subscription, the sum of £100,000 to found a college for natives at Khartoum, in memory of General Gordon. Boer War was now in progress, and in December 1899 he accompanied Lord Roberts to S. Africa as chief of

rehe assumed supreme command with the lieutenant-general, rank of brought the war to a successful con-clusion by means of a system of 'block-houses' and extensive 'drives' introduced to combat the guerilla tactics of the Boers. Assisted by Lord Milner he arranged with the Boer leaders the terms of the peace which was signed on May 31, 1902. Edward sent him and he was gratulatory telegram, raised to the rank of viscount in the peerage, while parliament voted him a sum of £50,000, and thanked him for his great services. In November of the same year (1902) he proceeded to India to take over the chief command of the forces there, where he remained till 1909. In that year he became commander in the Mediterranean, and he was raised to the rank of field-marshal. At the coronation of King George V. he commanded the troops in London. In 1911 he was made a Knight of St. Patrick, and returned to the scene of his earlier triumphs in Egypt, where, as agent and consul-general at Cairo. he had an opportunity of displaying his great qualities as an adminis-trator. In July 1913 the Khedive, on K.'s advice, granted a parliamentary which he entered the Egyptian constitution on a more democratic Cavalry, and took part in the Sudan initiation of a more democratic basis. Lord Rosebery said of him that he was 'a general with a dash of statesmanship.' A tacturen man of the words, he has shown himself a governor of Suakin in

1860 they were believed to be raised beaches, glacial deposits found round the coast of the British Isles, and little notice was taken of them. Professor Steenstrup, a Danish archæologist, found that though the mounds are largely composed of shells, there were also fragments of animal and bird bones, rough pieces of pottery, and implements of stone and wood. In some cases a considerable amount of burnt earth also was found, as well as stones showing the marks of fire, suggesting the stones put under the cooking pot by gipsies to this day. Among the shells he found those of the oyster, mussel, periwinkle, and cockle—molluscs which have never been known to live together under the same conditions. Two other facts -that the shells all belonged to wellgrown animals, and the entire absence of gravel in any heap-proved that the natural theory was wrong, and the conclusion come to by him and two other Danish professors, Worsaae and Forchhammer, and since then by many eminent archeologists, was that these heaps had been formed by early man and woman as they threw away those parts of their meals which they found it impossible to eat. The result of the three professors' investigation was submitted in six reports to the Danish Academy of Sciences, and several thousands of specimens found in the middens were presented to the Museum of Northern presenced to the Auseum of Northern Antiquities at Copenhagen. Some of the largest middens measure as much as 1000 ft. in length, 200 ft. in breadth, and 10 ft. deep. But the majority are much smaller and were probably the refuse heaps of a nomadic people who travelled along the coset living abider on shell-fact. the coast, living chiefly on shell-fish. Lord Avebury, who examined the midden at Haviloe in 1861, found over a hundred fragments of bone. rude flint flakes, slingstones, and nine roughly hewn axes. He thinks the middens probably date from the early part of the Neolithic Stone Age, when the art of polishing flint implements was slightly known. The food used evidently included herring, eel, dab, capercailzie, great auk, many kinds of wild ducks and geese, stag, reindeer, wild boar, dog, wolf, fox, beaver, wild cat, hedgehog, mouse, beaver, wild cat, hedgehog, mouse, seal, porpoise, water rat, and otter. Many middens now situated at the sea's edge show traces of having been some distance inland. Middens are found in every part of the world. In Europe they have been discovered on the coast of the British the K. is flown in the air, the cord listes, in Cornwall and Devonshire being let out as it ascends. When and Scotland, in France, Sardinia, and made of the common diamond shape,

were, in reality, the refuse heaps of Portugal. They are also found on various prehistoric peoples. Until many parts of the coast of N. and S. America, Australia, and Japan. Florida some of the middens examined have measured as much as 40 ft. in height. As investigations are carried out more thoroughly, middens are continually being discovered, pro-viding interesting evidence of the domestic habits of early peoples. The making of middens still goes on by little-civilised people who live on the coast.

Kitchin, George William (1827-1912), an English author and divine, spent his school days at King's (1827 -College School and College and after-wards graduated from Christ Church, Oxford. From 1868-83 he was censor to the non-collegiate students of his old university, a post which he renounced on receiving the deanery of Winchester. In this office he served till 1894, when he accepted a similar position at Durham. In 1909 he was created chancellor of Durham Uni-versity. Among his better-known publications are: a History of France, 1873-77; Pope Pius II., 1881: Win-chester, 1890; and Ruskin in Oxford, 1903.

Kite, the name popularly given to Milvus ictinus, a species of Falconida. It is now distributed through Europe, Palestine, Asia Minor, and N. Africa, and will breed occasionally in certain parts of N. and W. Britain. Three or four centuries ago these birds were found in great numbers in the streets of London, where they acted as street scavengers. The paper K. of schoolboys derives its name from this source. M. ictinus is generally distinguished as the red K., its general colour being reddish-brown, with tail-teathers of a light red, barred with brown; the bill is black and strongly curved; the deeply forked tail is capable of great expansion, and ensures the rapid, graceful flight which is such a marked feature of this bird. The habits of the K. are gregarious and sluggish, and its food consists of offal, small birds, fishes, insects, etc. Its nest, which is formed largely of rags and other rubbish, is generally placed in the cleft of a tree. M. aler, the black K., is very common in some parts of Europe. M. govinda is the pariah K. of India; M. affinis is an Australian species: and M. melanotis is confined to E. Asia.

or triangular with a semicircular top, ness with strength. K. have a 'tail' attached for balancing purposes. The invention of K. is ascribed by tradition to Archytas of Tarentum, in the 4th century B.C., but there is no doubt that long before this time K, had been known to the Asiatic nations and to some savage tribes. The origin of the practice of kite-flying is obscure; it is perhaps religious, and certainly still partakes of such a nature among the Maoris. The pastime has always been the national one of the Korean, Chinese, Japanese, Tongkinese, Annamese, Malay, and East Indian nations, and throughout Eastern Asia even the tradespeople indulge in it in the in-tervals of business. Many weird and beautiful shapes are taken by the Chinese and Japanese K .. birds. beasts, fishes, and dragons being represented; the size reaches 7 ft. in some cases, the framework being of bamboo strips covered with rice paper or very thin silk. The ninth day of every month is 'kite day,' when practically all the men and boys indulge in the pastime of kiteflying and kite-fighting. In the latter, the cord near the K. is stiffened with a mixture of glue and crushed glass or porcelain; each of the players strive to send his K. to windward of the other, when the cord is allowed to drift against that of its opponent, until a sudden jerk cuts through it. The K. used in the Malay Peninsula have no tails as a rule; in several parts of Asia K. are used which have one or more e give forth a when the K. K. are flown (ht by the common people in order to keep away evil spirits. K. were used for scientific purposes in 1749 and in Benjamin Franklin's when electrical experiment famous carried out, but their widespread use for meteorological and military purposes may be said to date from the latter years of the 19th century. At the present time many observatories in the United Kingdom and America make constant use of K. to record not only the temperature but the humidity of the atmosphere and the velocity of the wind at various alti-tudes. The K. used are mostly box or Hargrave K., so called after their They are in shape like a inventor. box with the two ends and the middle of each of the sides removed. K. with a semicircular section instead of the

The method of sending up K. is as follows: the first K. is launched with the self-recording barometers, anenometers, etc., either inside or just below it, and the wire is paid out at about 3 m. an hour until the K. is as high as is safe, considering its sail-area, etc. Another K. is then fastened to the end of the first wire, and so on, according to the height it and so on, according to the neight of 1 or 2 m. can be reached easily, but over 2 m. the risk of losing the K. is much greater. The length of wire that one K. will raise may be taken on the K. will raise may be taken, on the average, as 1000 ft. (of ½ in. wire) for every 10 ft. of lifting surface. From a military standpoint, K. are useful for signalling purposes, for carrying up lamps, flags, etc., for photographic purposes, and in the place of a captive balloon. When used for photography, the shutter of the camera which they carry may be operated by a clockwork apparatus or an electric wire, etc. Man-lifting K. have many advantages over captive balloons for reconnoitring purposes; they are cheaper, more rapid to use, not so easily damaged, and easier to transport. Lieutenant and easier to transport. Lieutenant H. D. Wise in 1897 lifted a man 40 ft. by means of a large Hargrave K., and Major Baden Powell, by means of five or six small K. measuring 1 sq. ft. in section, a method which is preferable to the use of one large K., lifted a man 100 ft. Most of the European powers have made similar experiments.

Kits Coity House, see DOLMEN.
Kittatinny, or Blue Mountains, a
mountain ridge of Pennsylvania and
New Jersey, U.S.A., forming part of
the Appalachian system. It is famous
for its picturesque scenery, and includes the celebrated Delaware Water Gap. Alt. 1200 ft. to 1800 ft.

Gap. Att. 1200 ft. to 1800 ft.
Kittery, a scaport tn. of Maine.
York co., U.S.A. It is situated at
the mouth of the R. Piscataqua, opposite Portsmouth, about 46 m.
S.S.W. of Portland. The Portsmouth
navy yard (a U.S.A. yard) is here,
and there is a busy coasting trade,
and there is a busy coasting trade,
and fishery. Pop. (1910) 3533.

Kitzingen, a tn. of Bavaria, Germany, in the prov. of Lower Franconia, on the R. Main, 10 m. E.S.E.
of Würzburg, with breweries. and a

of Wurzburg, with breweries, and a trade in wine and prunes. Pop. 9108.

Kiu-kiang, a treaty port in the prov. of Kiang-si, China. It is situated on the r. b. of the Yang-tse-klang. 130 m. S.E. of Hankow. Tea. tobacco, are used for fibre, paper, porcelain, and cotton are and with a in England. settlement. Pop. 36,000.

used varies from 30 to 80 sq. ft. Steel piano-wire is generally used, as it combines thin-province of Kwang-tung. Its port is

and was opened to foreign trade in 1876. The chief exports are pigs, nuts, grass-cloth, eggs, and sesamum. Pop. 42,000.

Kiushiu, Kiusiu, or Kimo, the most southerly of thislands of Japan,

separated from . of Korea, and fre

Island by the St has an area (including small adjacent) islands) of 16,840 sq. m., and is mountainous, though not remarkable for lofty peaks. Aso-tuke, an active vol-cano, has the largest crater in the world. The island is subject to earthquakes on the Pacific coast, and has a varied climate, the summers are hot and winters very cold, the months of July and August being especially marked by the oppressive heat at sea-The occurrence of the rice level. famine in 1869 in K., when the people perished from hunger on account of the lack of transport facilities, was largely responsible for the introduction of a railway system into Japan. A line now runs from Moji in the N. to Kagoshima in the S., a distance of 233 m., and another from Moji to Nagasaki, 164 m. Coal is found in the island, copper also is mined, and rice, wheat, beans, tea, and tobacco are grown. Pop. 7,500,000.

Kizil Kum, a desert of sand, situated in Russian Turkestan, and between the Amu-Daria and Syr-Daria Rivers. It extends in a south-easterly

direction from the Sea of Aral,
Kizil-Uzen, a riv. of N.W. Persia.
It rises in Ardelan, flows N. through
Azerbaijan, then S.E., and finally
N.E. through Ghilan into the Caspian
Star. E. of Beacht J. Arativ 450

Sea, E. of Resht. Length 450 m.
Kizlyar, a tn. in the Terek prov.,
Russia, situated on the Terek, 50 m. from the mouth of the river in the Caspian Sea. The vine and fruit are

cultivated here. Pop. 8000. Kjerulf, Halldan (1815-68), a Norwegian composer, born in Christiania, where he graduated in law (1834) before his efforts were finally directed to music (1840). Ten years later he studied in Leipzig under Richter. After an unsuccessful attempt, on his return, to organise subscription series of high-class concerts, he gave himself entirely to composition. His best work was composed from 1860-65. He wrote pianoforte pieces and stir-ring quartettes, and choruses for men's voices, but he is best known for his charming songs, of which he wrote more than 100. His setting of Björnson is justly famous. Kjobenhavn, the Danish name for

Copenhagen.

Kjöge, see Kiöge.

Kiolen Mountains (Kjölen,

Hoihow, situated about 3 m. away, keel), the name given to the main mountain system of the Scandinavian peninsula, which consists of a vast plateau grooved by deep valleys. These mountains run N. and S. and form the backbone range which of the three principal divides the two kingdoms of Norway and Sweden in the N.

Kjoprülü, see Koprilli. Kladderadatsh, a weekly illustrated paper, published in Berlin. Founded in 1848, it is the chief humorous paper in Germany.

Kladno, a tn. of Bohemia, about 15 m. N.W. of Prague. It possesses iron and coal mines, and manufactures

steel and fron goods. Pop. 19,339.

Klagenfurt, the cap. of Carinthia,
Austria, near the Elan, 40 m.

N.W. of Laibach. It possesses an
ancient cathedral, the Rudolfinum Museum, and a statue of Maria It manufactures leather, machines, cloth, and tobacco. Pop.

28,958. Klamath, Klamath, a riv. of California, U.S.A., rising in the S. part of Oregon and flowing through Klamath Lake. It assumes a south-westerly direction, and empties itself into the Pacific Ocean. Its course, which lies in a mountainous country, is through narrow canons, and has a length of about 275 m.

Klang, a tn. in Selangor, Malay states, situated near the Klang R. It is the chief seaport of Selangor.

Klapka, George (1820-92), a Hungarian general, born at Temesvar, joined the Hungarian revolution of 1848, when he won several victories and greatly distinguished himself by the siege of Komorn, which he defended long after the main Hungarian army had capitulated. He wrote Me-moirs of the War of Independence in Hungary, 1850; The War of the East, 1855; and other military works.

Klaproth, Martin Heinrich (1743-Kiaproin, Marini Frenirica (1/22-1817). a German chemist, born at Wernigerode. He was appointed lecturer in chemistry to the Royal Artillery in 1787, and professor at the University of Berlin in 1810. He was the leading German chemist of his time, and discovered uranium, titanium, zirconium, and mellitic acid; he also made experiments on copal and completed the discovery of tellurium. He wrote: A System of Mineralogy: Chemical Essays: and a Dictionary of Chemistry (with Wolf).

Klattau, a tn. of Bohemia, Austria, 28 m. S.S.W. of Pilsen. It has an old church and town hall, and manufs. cloth, machinery, chicory, and cloth, machinery, matches. Pop. 14,387.

Klausenburg, see Kolozsvar. Klausthal, or Clausthal, a tn. in the prov. of Hanover, Prussia, situated the on the Harz Mts., 25 m. N.E. of mines of Germany, producing lead, silver, and other minerals. Pop. 8268. Klein, Julius Leopold (c. 1810-76),

a German writer of Jewish origin. in Hungary and Ger-Educated many, he then travelled to Italy and Greece, finally settling in Berlin. He wrote many dramatic works, especially historical tracedies, including: Maria von Medici, 1841; Luines, 1842; Zenobia, 1847; Moreto, 1859; Strafford, 1862; and the comedies, Ein Schülcling, 1850; Vollaire, 1862. great work, Geschichte Dramas (1865-76), was unfinished, as he died when about to start on the Elizabethan period. See Dramatische Werke (collected 1871-72).

Kleist, Heinrich von (1777-1811), a German writer, born at Frankfort-on Oder. He served in the Rhine campaign of 1796, but left the service in 1799, and devoted himself to the study of law and philosophy, finally taking up literature. His first drama, Die Familie Schroffenstein, a gloomy tragedy, appeared in 1803; this was followed by Penthesilea (1808), taken from a Greek source, and a romantic play, Das Käthchen von Heilbronn, oder Die Feuerprobe, the same year. oder Die Feuerprope, the same Other dramas of his are: Die Hermannschlacht (1809), and Prinz Friedrich von Homburg (published 1821), generally considered his best work. He also wrote comedies e.g. Der zerbrochene Krug (1811), and patriotic lyries, and his Michael Kohlhaas is one of the best German stories of its time.

Klephts, bands of Greeks who in the 15th century waged guerilla warfare against the Turks, ultimately becoming brigands. They played a considerable part in the War of Independence at the beginning of the

19th century.

Kleptomania, a symptom of insanity which takes the form of an irresistible desire to steal. It cannot be considered a specific disease, but is associated with many forms of Some cases demental aberration. monstrate a desire to steal any sort of property that may be available; in other cases, the patients seem to be obsessed by the desire for particular objects which they will acquire in a legitimate manner if that is possible, although they apparently feel no inhibitory force if stealing suggests itself to them as an alterna-

stroom dist., Africa, 110 m. S ... There is a gold...

Pop. 5000.

Göttingen. It is in the neighbour-hood of some of the most valuable Düsseldorf. It has manufactures of mines of Germany, producing lead, machinery and cigars. It was the silver, and other minerals, Pop. 8268. capital of the duchy of Eleve from 1417 onwards, and contains Schwanenburg, the old ducal residence. One of Henry VIII.'s wives was Anne of Cleves. Pop. 18,048.

Klingenstierna, Samuel (1689-1785), a Swedish mathematician and philosopher, born at Tolefors, studied at Upsala. Celebrated for his discoveries in mathematics and physical science and specially for his researches on the aberration of light, which led to great improvement of the telescope and other optical instruments. Elected a fellow of the Royal Society

in 1730. Klingenthal, a tn. of Saxony in the It has manufs, of musical instruments.

Pop. 5500.

Klinger, Friedrich Maximilian (1752-1831), a German playwright and poet, born, like Goethe, at Frankfort-on-Main, became an ardent disciple of the latter. His drama, Sturm und Drang, gave its name to that move-ment in German literature, characterised by exuberance of action and want of form. Another drama of his, Die Zwillinge, is also celebrated. From 1780 to 1830 he was employed in Russia, chiefly as head of the corps of pages. See Riegen's Klinger in der Sturm-und-Drang Periode, 1880.

Klintsi, a tn. in the gov. of Tchernigov, Russia, 100 m. N.N.E. of the tn. of Tchernigov. It manufs. cloth and woollen goods, and is also

enraged in tanning. Pop. 12,000.

Klip River, a dist, in the S.W. of Natal, S. Africa, situated to the N. of the R. Tugela. It is watered by the Klip R., which rises in the N. of Natal, and the capital is Ladysmith. Klondike, a small riv. situated in the Yukon ter., Canada, about 120 m. long. The region of the goldfield includes part of the basin of this river, and also of the Indian R., the exist-ence of the mineral in this district being first discovered in 1896

Klopstock, Friedrich Gottlieb (1724-1803), a German poet, born at Qued-linburg. Studied theology at Jena and Leipzig. Early in life he felt called upon to write a great religious epic, and finally chose the Messiah as his theme. The first three canto-appeared in 1848. They were received with great enthusiasm, and K. was hailed as the deliverer of German Klerksdorp, a tn. in the Potchetfrom dist.,

Trica, 110 m. S.

Indicated as the derivere of German

Iliterature from the formalism of
Gottsched and mere imitation of
Fronch works. The Messiah was not
increase a release.

ameters, it is a very uneven poem. pp. 5000. some parts of it being imbued with Rhine deep feeling and fervour, while other

some time with Bodmer in Zürich. but his conduct was too frivolous for his serious-minded host. In 1751 he received a pension from the King of Denmark, and remained at Copenhagen till 1771. K. also wrote dramas, principally upon old German history, Die Hermannschlacht, Hermann und die Fürsten and Hermanns Tod, but their worth is small. His odes, however, are considerably better, and many of them are imperishable. See Fr. Muncker's Klopstock (2nd ed.),

Klostermansfeld, a tn. of Prussia in Saxony, 5 m. N.W. by N. of Eisleben. Pop. 5487.

Klosterneuberg, a tn. in Lower Austria, situated on the r. b. of the Danube, 5 m. N.W. of Vienna. Here is situated the oldest Augustinian monastery in Austria, and the wines produced are famous. Pop. 14,786.

Kloster Zeven, Convention of, con-cluded Sept. 10, 1757, by the Duke of Cumberland with the French commander, Duc de Richelieu, by which the former, who had been defeated at Hastenbeck and was without means of retreat, agreed to disband his army and leave Hanover to the French. The English government refused to ratify the convention, and recalled Cumberland in disgrace, although he appeared to be carrying out George II.'s instructions.

Knapweed, see Centaurea.

Knaresborough, a tn. in the West Riding of Yorkshire, England, 17 m. N.N.W. of York. There are remains of an old castle, and a grammar school. There is also a 'dropping well' and S. Robert's Cave. The town manufactures linens and rugs. Pop. (1911) 5315.

Knee, the joint between the lower and upper leg, involving articular surfaces on the femur, tibia, and patella, or knee-cap. The articular patella, or knee-cap. The articular surface of the femur comprises the greater part of the surface of the condyles, which are separated by a deep oyies, which are separated by a deep notch, while faint transverse grooves show the limit of their articulation with the patella. The patella is a heart-shaped bone; the wide upper part is concave and smooth, and is divided into two articular portions by a rounded ridge; the lower part is rough and non-articular. The joint is nearly surrounded by a series of ligaments of complex structure and movement. The ligaments are lined by the synovial membrane, which is the largest in the body. The movement of the knee is in general that of a hinge-joint, though a certain amount

are flat and trivial. In 1750 K. spent ticularly adapted to maintaining the erect attitude, which involves extension of the joint. Notwithstanding the important and strenuous nature of its function, the knee-joint is com-paratively free from injury, owing to the massiveness of the articulating members. The patella is liable to fracture by direct or indirect violence, and is still more liable to dislocation. which, however, is often reduced without much trouble. Persons of Persons of tuberculous constitution are liable to serious disease following upon any injury to the joint, and such injuries should be followed by careful treatment for a protracted period. strain is often followed by inflammation of the synovial membrane, and this is apt to recur if the joint is subjected to violent treatment before perfect recovery. Hence the need for protracted rest in cases of 'water on

the knee. Kneeling seems to have been the primitive Christian attitude for nonliturgical prayer, and also for peni-tents at the Liturgy, during the greater part of which the faithful stood. At other services K. seems to have been the custom in prayer except on Sundays and during Easter-tide, i.e. until the octave of Pente-cost. K. was then more like prostration and the terms are frequently used synonymously. The practice of standing at the Liturgy is now only retained in the Eastern Church. In the Roman and Anglican Churches, the people almost invariably kneel for prayer. While the celebrant refor prayer. While the celebrant re-ceives the Sacrament standing, the people do so while kneeling.

Kneller, Sir Godfrey (1646-1723), a portrait painter, born at Lübeck. Studied for the army at Leyden, but subsequently became a pupil of Rem-brandt and Ferdinand Bol at Amsterdam and of Carlo Maratti and Bernini at Rome. Came to London in 1674 and made an unrivalled reputation as a portrait painter, acquiring a considerable fortune. His portraits include Charles II., James II., Vil-liam III., Queen Anne, George I., Peter the Great, Louis XIV., Charles VI. of Spain. He was knighted (1692) and made baronet (1715). In 1705 he settled at Whitton House, which is now national property and known as Kneller Hall (see below). A number of his works are to be seen in the National Portrait Gallery, London.

Kneller Hall, once the property of Sir Godfrey Kneller, now in possession of the state, is situated in Middlesex, half-way between Hounslow and Twickenham. It is a very fine of rotatory movement is possible example of Queen Anne architecture, when the joint is moderately flexed. The mechanism of the joint is part the Royal Military School of Music. example of Queen Anne architecture, and now serves as headquarters for

Knibb, William (1803-45), a missionary, born at Kettering, and in listed the IV indsor and Eton Express, of the Baptist Missionary Society. In 1812 per terminal to England, and so printed the Elonian. He 1832 he returned to England, and commenced a busy career as published the live in the commenced as the commenced as the commenced as published the commenced as spent his time in trying to further the emancipation of slaves. He returned to Jamaica, where, with the excep-tion of one or two other visits to England, he spent the rest of his life.

Knickerbooker Families, the term applied to the people of New York who are descended from Dutch settlers. The name arose from Washington Irving's History of New York (1809), Diedrich Knicker-bocker being his pseudonym.

Knife (A.-S. cnif, a cutting plement). Of the weapons and found as relics of the Stone Age

term kalfe is applied to sharpened flints which were designed to be held in the hand or mounted upon a short handle to give slightly more leverage for cutting. The manifold uses to which a K. can be put give it great importance in the development of races. As distinct from the dagger, which is always twoedged, the prime importance of the K. is its use as a tool; its use as a wcapon can easily be seen to be secondary, as only its ready accessibility favours its adoption in preference to more specialised weapons. Bronze Ks. have been found amongst relics of the bronze period, and the use of iron was common long before hardened steel became the established material for the making of Ks. From a remote period in English history the manufacture of Ks. has been associated with the town of Sheffield, in Yorkshire. The earliest form of steel K., a blade of steel fastened rigidly to a wooden or horn handle, was followed by the jack K., which closed into a groove in the handle, in the 16th century. In the 17th century the pocket K., with spring back. was introduced, and has developed with increase in the number of blades and improvement in workmanship ever since. Ks. are made usually of shear steel, the various processes being forging, hardening, tempering, grinding, polishing, and finishing, Sometimes the less essential parts of the K., such as the tang by which it is fastened to the handle, are made of malicable iron which is welded to the cutting portion. Among various forms of Ks. may be mentioned

lisher of good literature at low prices with the production of The Plain Englishmen, which he edited from 1820-22, in conjunction with E. H. Locker of Greenwich Hospital. Settling in London in 1822, he founded Knight's Quarterly Magazine, to which Macaulay and other rising literary men contributed. In 1827 he became associated with the Society for the Diffusion of Useful

popular biography of Shakespeare (1843). His Popular History of (1843). His Popular History of England was completed in 1862. In 1860 he was appointed publisher of the London Gazette. His active career as a publisher came to an end in 1864. but his work as an author continued but his work as an author continued to the close of his life. His other publications include: The Library of Entertaining Knowledge; The Pictorial Bible, 1836; The Pictorial History of England, 1837-44, etc. See Life by Alice Clowes (1892).

Knight, John Prescott (1803-81), a certrait pointer, born at, Stafford

Academy in 1824, becoming an academician in 1844. He was professor of perspective at the Royal Academy from 1839-60, and secretary from 1848-73. His best-known work is the 'Waterloo Banquet' in the

possession of the Duke of Wellington. Knight, Joseph Philip (1812-87), composer of songs, born at Bradfordon-Aron. He produced his first songs at the age of twenty, and after this joined with Haynes Bayly in com-posing The Veteran; She Wore a Wreath of Roses, and many others. Of his independent efforts his best Rocked in the Cradle of the Deep, 1839. He took holy orders after 1841, and was appointed to the charge of St. Agnes, Scilly Isles.

Knight, Richard Payne. (1750 -1824), a numismatist, born in Hercfordshire. His journal which he kept when he visited Sleily with the Ger-man painter, Philip Hackert, was translated and published by Goethe pocket, table, carving, hunting, surgical, butchers', shoemakers', and pruning Ks. Many tribes of the Nile and Congo districts are very expert in throwing Ks. as a method of attacking animals.

Knight, Charles (1701) 1770. magnificent collection of bronzes, pictures, etc., were bequeathed to the British Museum. He was regarded as Attacking animals.

Anithm animals.

Inclined art, and was vice-president Knight, Charles (1791 – 1873), an of the Society of Antiquities. His author and publisher, son of a works include: An Account of the

the Greek Alphabet.

Knight, Thomas Andrew (1759-1838), a horticulturist, born in Herefordshire. He was awarded the first Knightian medal, founded in his honour in 1836, and was president of the Horticultural Society from 1811-38. He wrote: A Treatise on the Culture of the Apple and Pear; Pomona Herefordiensis, 1811; and over 100 papers, some of which were published in 1841.

Knighthood, a word which in its

origin was intimately bound up with the class of military tenants of the feudal system. It is purely a matter of antiquarian interest whether the term knight (O. E. or Saxon, cniht, a boy), ever superseded or was ever synonymous with the Latin miles or the gesith or comes of Tacitus, or whether it applied solely to the military tenants of a baron or earl exclusive of those of the king himself. For it is at least certain that under the feudal system as introduced by the Con-queror and developed under Henry the military strength of the nation was measured by the number and efficiency of the knights whom the king was able to summon to the field, and a knight then meant no more than a person whose holding of land was on condition of performing military service for the sovereign (knight's fee or tenure in chivalry). Chivalry was practically a synonym for K., but was not used with the same vulgarly utilitarian connotation. and is rather to be regarded as a semireligious, semi-epic growth of the feudal system, which reached its flower of perfection during the Crusades. The Church early threw its ægis of solemnity over the formal investiture of a youthful knight into the profession of arms, and inculcated in him those virtues which we habitu-ally associate with the word 'chivalry.' ally associate with the word 'chivairy.' The institution of the celebrated military orders of the Knights Templars and the Hospitallers, or Knights of St. John, was the direct result of the Crusades. The members of these orders were pre-eminently and primarily Soldiers of the Cross, whatever charges of misgotten wealth, worldly kiving idleness and heresy worldly living, idleness, and heresy may with justification be hurled against their representatives of a later age. These knights have ever in the popular imagination existed as a far more heroic, nay, almost legendary, class of men, than the mere tenants in chivalry of the feudal system. Nor is thisremarkable, because their primary | knights and baronets, and their wives

Remains of the Worship of Priapus; object being to repulse the infidel, An Inquiry into the Symbolical their orders were essentially cosmo-language of Ancient Art and Mythopolitan and attracted the pick of lopy; The Landscape (a didactic kinght errantry, and the honour of poem); and An Analytical Essay on K. was conferred upon their members by various European monarchs quite irrespective of any property qualifica-tion, and for the most part purely on account of military distinction. But side by side with these orders existed the knights of the feudal system, and indeed this territorial K., as it may be termed, and chivalry in its more appropriate sense declined together. In England, even in the middle ages, K. was not by any means an un-questionably desirable honour, if, as contemporary chronicles show, the king was frequently obliged to resort to distraint to compel those who held knight's fees (land of about £20 annual value) to take the order of K., or prove that they were qualified to take the field as knights. This practice soon developed into a lever for inducing tenants to compound with the king by way of fine (sculage), and ultimately into a process for extorting money from those who would have been exempt at common law, which regulated the amount of a knight's fee by the sufficiency of the land to support a knight, and not by its fluctuating nominal value in a de-based currency. This process of ex-tortion by compulsory K. was revived in a truly anachronistic manner by Charles I. as a means of raising money without resorting to parliament, with the result that an Act was soon passed abolishing the prerogative of compulsory K. At the present day the ancient mili-

tary origin of K. is preserved in the continued existence of the accolade or symbolical ceremony of dubbing a man a knight by touching his head with the tip of the royal sword. This and a few other relics of chivalry as applied to a modern knight are, of course, utterly devoid of meaning in this material and industrial age. Ks. are conferred chiefly upon commercial plutocrats, assiduous civil servants. and successful party politicians, with only a very occasional concession to the claims of artistic distinction. War no longer affords the scope it did for the conferring of dignities, and, moreover, so strong is the universal desire for peace, that the quondam glories of martial strife so passionately sung in those classic epics and which form the life-blood of a genteel education, excite surprise in the modern mind rather than an answering chord of sympathy.

K. gives precedence over esquires and other untitled persons. 'Sir,' is prefixed to the baptismal name of 5

have the legal designation of ' Dame,' older persons it is caused by undue which in modern parlance is converted into 'Lady.' Besides those who are simply knights there are others who are members of particular orders or classes which exist in most of the European states, and owe their foundation generally to some sovereign prince. Of this class of honorary associations are the British Orders of the Garter, the Thistle, St. Patrick, the Bath, the Star of India, St. Michael and St. George, and the Indian Empire. Similar continental orders, equally avid of the hallowed claims of an exalted, if generally legendary, antiquity are the Order of the Holy Ghost founded by Henry III. of France, and the Order of the Golden Fleece of Spain. Probably the most distinguished of the British Orders is that of the Garter. The pre-tensions of that of the Both to expensions of the total protensions of that of the Bath to an equal dignity of genesis are now generally agreed to be apocryphal in spite of Selden and Camden.

Knightsbridge, the name of a dist. of W. London, which extends into the borough of Westminster and also that of St. George's, Hanover Square,

Knight-Service, a system of land tenure in feudal days, which was in-troduced after the Norman Conquest. The king divided the land amongst his tenants-in-chief who rendered him K. in return, i.e. they had to provide so many knights for service in the field according to the amount of land (knights' fees) held, and were also liable to certain fees. Tenure by K. was abolished in 1660. Knights Hospitallers. see Hos-

PITALLERS, KNIGHTS. of Labour, see TRADE

Knights

Unions. Knights of Rhodes and Malta, see

HOSPITALLERS, KNIGHTS.

Inights of St. John of Jerusalem, see Hospitallers, Knights.

Knights Templars, see Templars. Knin, a tn. in Dalmatia, Austria, situated E.S.E. of Zara. Pop.

(com.) 25,930.

Knittlefeld, a tn. in Styria, Austria, 30 m. W.S.W. of Gratz. Pop. 9947. Knock, a par, and vil. of co. Mayo. Ireland, 5 m. N.N.E. of Claremorris. The church has been visited by pilgrims since Aug. 21, 1879, when it was announced that the Blessed Visite bed over the chartening of the Virgin had appeared there in bodily form. Pop. (1911) 3000.

Knock-knee, a condition in which the knees are close together and the feet widely separated. In infants it is usually the result of rickets and may be avoided by taking measures to keep the child from standing on its feet. General attention to health and nutrition is also necessary to Teutonic stem knutt. cf. knit), in counteract the predisposing cause. In cordage, an intertwined loop of rope,

pressure on the joint, owing to in-dividuals of poor nutrition having to perform work beyond their strength. The weight of the body is transmitted through the outer condyle of the femur; if heavy loads are carried by a young person the ligaments of the knee fail to maintain horizontality in the joint. The outer condyle gradually diminishes in size owing to the increased pressure, and the inner condyle grows to a corresponding extent, causing the condition to be-come permanent. When observed in time massage and attention to the circumstances under which the undue pressure is sustained will tend to alleviate the condition.

Knockmealdown, a mountain range of Ireland, in the S. of Tipperary, and the N.W. of Waterford. Its length is 12 m., with an average width of 4½ m., and the summits reach about 2700 ft.

Knolles, Richard (c. 1545-1610), an Oxford.

hool at His

Was published by Islip (1603), and edited with additions by later K. translated Rycaut (1700).Bodin's De Republica (Common Weal) in 1606, dedicating it to his patron, Sir P. Manwood. See Bliss, Wood's Athenæ Oxon., ii.; Byron, Works, ix.; Johnson in the Rambler, No. 122:

Johnson in the *tamouer*, Av. Landthenæum, August 6, 1881. Knollis (or Knollys), Sir Francis (c. 1514-96) an English statesman, descendant of Sir T. Knollys (d. 1435). He entered Henry VIII.'s service He entered Henry VIII.'s service before 1540, became M.P. for Hor-sham (1542), fought for Edward VI. in Scotland, and was knighted in His strong Puritan views 1547. caused him to leave England in Mary's reign, but he returned under Elizabeth, and was sent by her on a mission to Ireland (1566), and later to take charge of Mary Queen of Scots. See Naunton, Queen Elizabeth's Favourites; Haynes, Burghley Papers, 1740; Gent. Mag., Pt. i., 1846; Hayward, Annals, Hatfield 1846 ; *MSS.*, i.

Knollys, Francis, first Baron of Caversham (b. 1837), private secre-tary to King Edward VII, from 1870-1910 and to King George V. from 1910-12. He was gentleman-usher to Queen Victoria from 1868-1901, and groomin-waiting to the late king when Prince of Wales from 1886-1901. He is a director of the Great Eastern Railway. Knossus, Crete, see CNOSSUS

Knot (Old English enotta, from a Teutonic stem knutt, cf. knit), in

cord, string, or any flexible material, next, twice each way, with the aid of used to fasten a rope to an object or a marling-spike. Before being turned to another rope. The various methods in a second time the strands are of fastening are known by the halved, the upper half only of each technical names of Ks., bends, hitches scizings, and splices, all of which, save the last, would be termed varieties of Ks. by the layman. Bends, and hitches are methods of fastening ropes together or round spars, etc.; 'seizings' (French saisir) are ways of fastening two spars to one another by a rope, or two ropes by a third; 'splices' (cf. split) are made by weaving the ends of two ropes together (see below). These terms are often used somewhat arbitrarily, but, generally speaking, and seizings are permanent fastenings, but bends and hitches can be undone by straining the ropes in the opposite direction from that in which they were meant to bear strain. Ks. are employed in various in-dustries, particularly on board ship and in the building trade in connection with scaffolding; the principle on which all are constructed is that the strain they bear shall serve to draw them tighter. There are many different kinds of Ks., most of them technical in nature and local in application; the ordinary individual does not use more than half a dozen different Ks. for any purpose. The commonest kind of K. is the 'over-hand knot,' which is made by passing one end of a rope or string over and round a portion of itself, and then turning the end through the loop thus formed. A 'reef knot' is made by forming two overhand Ks. with different ends of the line; this K. will neither slip nor jam, whereas, if the overhand Ks. are made the same way, a 'granny' will be formed, which will jam if it does not slip. Among the various kinds of Ks. used on board which for different numbers, may be ship for different purposes may be mentioned: figure of eight, bowline, running bowline, half-hitch, clove hitch, Blackwall hitch, double Blackwall hitch, cat's paw, marling-spike hitch, fisherman's bend, timber hitch, Carrick bend, sheet bend, single and double wall Ks., Matthew Walker, inside clinch, midshipman's hitch, Turk's head, Spanish windlass, shroud Flemish eye, racking seizing, diamond K., etc.

Splices are methods of fastening two ropes together in such a way that there is no great increase in size or decrease in efficiency and strength at the point of junction; there are three main kinds, the short splice, the eye splice, and the long splice. The short splice is formed by unlaying the strands of the rope for a short dis-tance, 'marrying' them, and passing them over one strand and under the

in a second time the strands are halved, the upper half only of each strand being turned in; all the pro-jecting strands are then cut off neatly. An eye splice is made by unlaying the strands of the rope and placing them upon the same rope, spread at such a distance as to give the right size of loop for the eye required. A splice is then made in a similar manner, and when projecting ends have been trimmed, the part disturbed is bound tightly round with a hard line. In a long splice, not only are the ends unlaid for three times as long as in the short splice, but one of the strands of each rope is unlaid for a still further distance, thus making the splice firmer. In a scientific sense a K. is a physical line, i.e. a flexible in-extensible line that cannot be cut, that cannot be deformed into a circle.
J. B. Listing (1802-82) was undoubtedly the pioneer of the scientific study of Ks.; in his Vorstudien zur Topologie he gives in a few pages what is evidently only a precis of his ob-servations on the subject. Professor servations of the subject. Professor P. G. Tait treated of Ks. according to their 'knottiness,' beknottedness,' and 'knotfulness,' in his paper to the Royal Society of Edinburgh (see Transactions Roy. Soc. Edin., xxviii. 145, 1876-77). He applies the name of 'amphicheiral' (appl and xxp) to Ks. which can be deformed into their transactions that is their invariant. own perversion, that is, their image in a plane mirror. It has been shown that any K. can be represented by three plane curves, none of which has double points and of which no two intersect, and C. F. Klein has proved (Mathematische Annalen, ix. 478) that Ks. could not exist in space of four dimensions. In addition to the works cited above, see Tom Bowling's Book of Knots, 1866; J. T. Burgess, Knots, Ties, and Splices, 1884, etc. Knot, the name of the conventional nautical mile; the term comes from the knots which are used in the logline by which the speed of a ship is calculated (for details see Log). For the purposes of navigation, a mile of latitude is supposed to be equal in length to a minute of latitude. The nautical mile is thus the length of a minute of the meridian, and varies ac-cording to latitude, strictly speaking, although calculations in this country

are based on the assumption that a K. is 6080 ft., as opposed to the statute mile, which is 5280 ft. The K. in the U.S.A. is reckoned as 6082 ft. 8 in. Ten cables make one K. in charting, etc., although the usual length of a cable is considered to be 600 ft.

Knottingley, a par. and urban dist.

of West Riding, Yorkshire, England, tion, for about this time began the great on the R. Aire, 3 m. N.E. of Ponte-immigration due to the Irish famine. on the R. Aire, 3 m. N.E. of Ponte-fract. The industries are earthenware and glass bottle works, rope-walks and limestone quarrying. Pop. (1911) 6682.

Knout, a whip used in Russia for the punishment of criminals, said to have been introduced under Joan III. (1462-1505). There were various kind of Ks. One consisted of many thongs of skin plaited and interwoven with wire, ending in loose wire ends, like

the cat-o'-nine tails.

Knowles, James Sheridan (1784-1862), a dramatist, the son of James

Knowles 1. A vil. in the co. of Warwickshire, England, 9½ m. S.E. of Birmingham, and possesses tohurch dating from early times. Pop (1911) 4195. 2. A par. and dist. o Somersetshire, situated 2 m. from Bristol. Pop. (1911) 20,150.

Knowles, James Sheridan (1784-1862), a dramatist, the son of James & the levicographer, after failing in

K., the lexicographer, after failing in several callings, turned as a last re-source to the writing of plays, in which occupation he achieved con-siderable success. His tragedy of Caius Gracchus was produced at Bel-

fast in 1815, and won much praise.
Five years later his Virginius, suggested to him by Kean, was performed at Dury Lane. For Macready at Covent Garden he wrote William Tell (1825); and three years later was produced The Beggar's Daughter of Bethnal Green. His other plays were Alfred the Great (1831), The Hunchback (1832), and The Love Chase (1837). Though highly esteemed in his day, his work is not now held in much regard, and his plays are rarely performed. There is a biography by

his son, Richard Brinsley K. (1872). Knowles, Sir James Thomas (1831-1908), an editor, began life as an architect, in which profession he rose during a practice of thirty years to some eminence. When the Meta-

physical Society was founded in 1869, K. acted as secretary. This position brought him into intimate relations with many of the leading men in the country, and his wide acquaintance was of great value to him when he accepted the editorship of the Contemporary Review in 1870. He re-

signed the editorship seven years later, and then he founded the Ninedeep, and then he founded the Nine-teenth Century, which, Gladstone, Tennyson, Huxley, Fitzjames, Ste-phen, Manning, and other celebrities contributing, was from the first a great success. He was made K.C.V.O.

in 1903.

Know-nothings or American Party, a secret political association formed in the U.S. A. in 1859 for the approach in the U.S.A. in 1852 for the purpose of preventing all but native Americans from holding office. It was cans from holding office. primarily the result of foreign emigra- of Edward VI.

and in the five years from 1845-50 there came in about as many aliens as had been received during the whole twenty years before. Added to this the great volume of the Irish immigration was Roman Catholic, and animosity to that church gave fire to American prejudice, hence the success of the K. In 1854 they carried the state elections in Massachusetts and Delaware, in 1855 elected governors and legislatures in New York and four New England states, and in 1856 eight of the thirty-two

> this was tion.

Knox

Knowsley, a par. and tn. of S.W. Lancashire, England, 5 m. W. of St. Helens. The mansion of Knowsley Hall has been, since the reign of Richard II., the seat of the Stanley it contains family: several reasures, including Belshazzar's Feast treasures, Rembrandt's 'Belshazzar's Feast' and specimens of Rubens and Corrergio. Pop. 1500. Knox, John (c. 1513-72), a Scottish reformer, born in Giffordgate, Had-

dington, and from statements of K. himself it would appear that his father was a feudal dependant of the Earl of Bothwell. His mother's name was Sinclair. It was formerly believed that K. was born in 1505, and that he was the John K. who entered Glasgow University in 1522, but later opinions favour 1513 or 1514 as the date of his birth. Little is known of his early years, but it is known that during 1540-43 he acted as notary in Haddington, and in 1544 he became tutor to Francis and John, sons of Hugh Douglas of Longniddry and Alexander Cockburn of Ormiston. At the houses of Douglas and Cockburn and Crichton of Brunston, he met George Wishart, whose zeal in the Lutheran cause made a deep impression upon him. In 1546 Wishart was burned at St. Andrews for heresy, and K., having been in association with him, was compelled to take refuge in the castle of St. Andrews in the following year on st. Andrews in the following year in order to escape arrest. The castle was then held by the murderers of Cardinal Beaton. At this time he was formally called to the ministry, and preached in the castle and parish church of St. Andrews, making a procession of the castle and parish church of St. Andrews, making a procession of the castle and parish church of St. Andrews, making a procession. found impression. A few months later the castle was surrendered to the French, and, in violation of the terms of surrender, K. and others were condemned to the French galleys. K. was a prisoner in France for eighteen months, and then, in Feb. 1549, he was released through the intervention He went over to

England, and preached at Berwick-on-Tweed, Newcastle, and in Bucking-hamshire. In 1551 he was made one of the six royal chaplains, and in that capacity he took part in the revision of the second Prayer Book of Edward VI. On the accession of Mary Tudor, K. crossed over to the Continent. From Dieppe he proceeded to Geneva where he spent most of the next eighteen months, interrupted only by short visits to Zürich and Frankforton-the-Main. At the latter place he ministered to the English refugees, but left owing to objections to his teaching. At Geneva he met Calvin, but was not so much impressed by Bullinger, whom he met at Zürich. He returned to Scotland in Sept., 1555, and it was about this time that he married his first wife, Marjory Bowes. He found the nobles of Scotland strongly inclined towards Protestantism, owing to the co-operation of the court with the policy of France. He proceeded to champion the cause of Protestantism with so much vigour and success that his opponent compelled him to quit the country, but not before he had laid the foundations of ultimate success. He was summoned by the bishops to appear at the Blackfriars Kirk in Edinburgh on May 5, 1556, but he came with so strong a following that the prosecustrong a following that the prosecution was abandoned. He returned to Geneva in July 1556, and during his three years' residence there he sent over to Great Britain a series of propagandist pamphlets, including his well-known First Blust of the Trumpet against the Monstrous Regiment of

He returned to Scotland in 1559, and never left it again for any length He found the Protestant nobles now in open revolt against the queen-regent, and he greatly advanced their cause by his powerful preaching at Perth, St. Andrews, and Edinburgh. He joined the qualities of a statesman with those of a divine, and he took no secondary part in the events that followed. It was mainly through his efforts that the aid of England was obtained in forcing the queen-regent to send the French soldiers out of the country. The soldiers out of the country. The of his native country, and has left an death of the queen-regent about time occurred, opportunely for

time occurred, opportunely for opponents, and Protestantism stablished as the religion of the country, K.'s Confession of Faith being formally adopted on Aug. 17, tuterances made him a valuable asset to the cause he championed, and his when Mary Stuart, with her entirely Roman Catholic leanings, came to more than a pulpit force. He was in Scotland in 1561. K., who had become minister of Edinbugrh in the previous year, felt that he had a of Calvin. The regent, the Earl of special duty towards her and a Morton, said at his graveside, There

sermon which he preached at St. Giles, Edinburgh, in 1561, led to the first of his famous interviews with the queen, which he has so vividly described. Many of the nobles seemed disinclined to go the full length of K.'s Calvinistic ideals, but the misfortunes of the queen aided his aims considerably. K., nevertheless, remained in the background for a time, mained in the background for a time, and after the murder of Rizzio he deemed it prudent to withdraw to Kyle in Ayrshire. After the murder of Darnley, K. came to the front again, and denounced the queen and Bothwell, acting once more with Moray from whom he had been estranged for time. These events and the direct of a time. These events and the flight of the queen to England resulted in the final overthrow of Roman Catholicism K.'s work was now in Scotland. almost done. His imprisonment in France in earlier years had greatly impaired his health, and that, combined with his many years of strenuous agitation, began to tell upon him, but he was still a force to be reckoned with. James Melville draws a striking picture of the reformer in his later days at St. Andrews, where he was so weak that he had to lean against the pulpit on his first entry, but before the sermon was ended he was 'like to ding that pulpit in blads (fragments), and fly out of it. His last public appearance was on Nov. 9, 1572, at the induction of his successor, Lawson, to St. Giles, Edinburgh. This effort greatly exhausted him, and he gradually sank, and died on the 24th of the same month. Two days later he was buried in the churchyard then attached to St. Giles, but now forming part of the courtyard of Parliament House. The spot where his remains lie is indicated by a plate hearing the initials I. K. K.'s first wife died in 1560, and in 1564 he married Margaret Stewart, then a girl in her 'teens. He was survived by his second wife and by all his children.

To modern minds K. presents the character of a rugged, stern, fierce reformer, in fact, almost a fanatic, yet he was the type of man needed for the age in which he lived. He had a great share in fashioning the destiny

preme, finds

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lies he who never feared the face of its name from Canute's ford, is very man, who hath been often threatened with dag and dagger, but yet hath ended his days in peace and honour: for he had God's providence watching over him in a special manner when

his life was sought."
See K.'s Historie of the Reformation of Religioun within the Realme of Scotland (1584), which is his most abiding monument as a writer. The standard edition of his works is that edited by David Laing for the Wodrow Society, and published in six vols. in 1864. See also K.'s Corre-

spondence; Thomas M'Crie's Life of Knox, 1813; Carlyle's Heroes and Hero Horship; Lorimer's John Knox and the Church of England, 1875; P. Hume Brown's John Knox, 1895; Macmillan's John Knox, a Biography, 1905; Lang's John Knox and the Reformation, 1905; Glasse's John Knox, 1905; and Cowan's John Knox, 1905; Knox, John (c. 1720-90), a Scottish philanthropist, for many years a bookseller in the Strand, London. He

then retired to Scotland, devoting his energies to improving Scottish fisheries and manufactures, and making sixteen tours through Scotmaking sixteen tours through Scot-land (1764-75). His works include: View of the British Empire... (pub. anon.), 1784; Observations on the Northern Fisheries..., 1786; A Tour through the Highlands... See Buckle, Hist. of Civilisation, iii.; Gent. Afag.. Pt. ii. (1786-87), Pt. i. (1789), Pt. ii. (1790); Imp. Dict., xii. Knox, William (1789-1825), and

Scottish poet. He became a farmer

1812-17, and 1820, follow-His works in-

Mariamne, or the Widower's Daughter (prose);
The Lonely Hearth . . . 1818; The
Songs of Israel, 1824; The Harp of
Zion, 1825. His Collected Poems
appeared in 1847. See Sir W. Sectt's
Journal, 1.; Lockhart's Life of Scott,
7: 1837. Postage: Secttlesh Mindtell

vi., 1837; Rogers' Scottish Minstrel, iii. Knoxville, a city and the co. seat of Knox co., Tennessee, U.S.A., on the Holston R., 165 m. E. of Nashville. It has a beautiful situation, and is the centre of the marble trade of Tennessee. It also manufs, cotton and woollen goods, furniture, flour, iron goods, and other articles. Here is situated the University of Ten-

nessee. Pop. (1910) 36,346.

Knoydart, a tn. of Nova Scotia in Pictou co. on Cumberland Strait, 18 m. W.N.W. of New Glasgow.

supposed to have derived; town.

old and picturesque, and is described Mrs. Gaskell's Cranford.

manufs. cotton, leather goods, and worsted. Pop. (1911) 5760. Knysna, the name of a div. and tn. in Cape of Good Hope. The division comprises a strip of land on the S. coast of the prov., and the town, which is at the mouth of Knysna R., is 135 m W. of Port Elizabeth. Pop. of div. 9000; of tn. 1600.

Kobdo, a tn. of W. Mongolia, situ-

ated on a plateau which is about 4000 ft. above sea-level. Pop. 6000.

Kobé, a tn. of Japan on the island of Hondo on the Bay of Osaka. It joins the city of Hyogo. In 1868 it was opened to foreign trade, and the city of Hyogo was opened at the same time, the former becoming the foreign residential quarter. Since 1892 the two towns have formed one. It possesses an excellent harbour, and has superseded other Japanese ports in trade and in the number of ships visiting the port. It has also an imperial shipbuilding yard. Pop. 378,197.

Kobeh, or Kobi, a tn. of Sudan, 35 m. W.N.W. of El-Fasher. It was at one time the capital of Darfur. ov. of la, 100 Pop.

11,800 Koblenz, a fortress and tn. of Prussia, the cap, of the Rhine province, situated at the junction of the rivers Rhine and Moselle, 57 m. S.E. of Cologne. The chief buildings of note are the royal palace, finished in the latter half of the 18th cen-tury, and a statue of the Emperor William I. A large amount of wine is produced in the town, and there are also piano and machine factories. Pop. 56,476.

Kobold, see Goblin.

Kobresia, a genus of Cyperacere, contains less than half-a-dozen species, flourishing in Europe and Asia. caricina occurs on British moors.

Kobrin, a tn. in the Grodno gov., Russia, 100 m. S.E. of Grodno. The inhabitants are engaged in tanning and the making of bricks. 10,000.

Koburg, see Coburg. Koch, Pali, or Rajbansi, a race of India of aboriginal descent, which inhabit N.E. Bengal and Assam. They are probably of Mongolian stock. The wealthier members of the ruce pretend to be descended from Siva. Pop. 2000.

Knur and Spell, see Trap and Ball.

Knutsford, a market in, in the served in the independent state of co. of Cheshire, England. It lies Kuch (or Koch) Behar. They number the large of the independent state of co. of Cheshire, England. It lies Kuch (or Koch) Behar. They number the large of the Koch, Charles Paul de (1791-1871),

French novelist, more popular, S.W. of Kobé. It is noted especially ead than in France itself. His for coral. Pop. 38,279. abroad than in France itself. novels deal mostly with Parisian middle-class and low life in a witty and realistic manner. Among the chief are: Georgette . . . , 1820; Gustave; Mon Voisin Raymond; André le Savoyard, 1825; Le Barbier de Paris, 1826. See Mémoires, 1873; Trimm,

Vie, 1873.

Koch, Karl (1809-79), a German betauist and traveller, born at Wurzburg and Weimar, studied at Wurzburg and Jena. Travelled through Russia, Turkey, and Armenia; was assistant professor of botany at Jena (1839-43). His works include: Dendrologie, 1869. Beiträge zu einer Flora des Orients, 1854; Das natürliche System der

Pflanzenreiches, 1839.

Koch, Robert (1843-1910), a celebrated German physician, founder of modern bacteriology, educated at Göttingen. He isolated the bacillus of anthrax (1876), later proposing a means of preventive inoculation against the disease. In 1882 he discovered the bacillus of tuberculosis, and led the cholera expedition to Egypt and India (1883), finding the cause of cholera in the comma bacillus. K. was professor at Berlin Uni-yersity (1885) and director of the Diseases Institute for Infectious He prepared tuberculin (1890-91), a lymph or 'paralotoid' by which he hoped to effect a cure for phthisis, but it has failed to prove a remedy though valuable as a diag-nostic agent. K. held that there was a distinction between tuberculosis in man and in cattie, and delined the possibility of transmission of the possibility of transmission of the possibility of transmission of the possibility of transmission. English Royal Commission Reports on Tuberculosis (1904, 1907, 1909, 1911) strongly support the opposite view. In two visits to S. Africa (1896 and 1903) K. studied the 'rinderpest' (cattle-plague), investigated malaria and its causes in German E. Africa (1897), and the W. African sleeping-sickness' (1905-6). His works in the die in t C

schrift für Hyggen. krankheiten. See Becker, Rovert Koch, 1891; Loeffler, 'Robert Koch' in Deutschen medizinischen Wochen-

schrift (No. 50), 1903. Koohi, a tn. of Japan, situated on the S.E. coast of Shikoku, 135 m. for the government

Kohl

Kochlowitz, a tn. in the prov. of Silesia, Prussia, 31 m. E.N.E. of Ratibor. Pop. 7190.

Kodak, a photographic camera of special type for taking instantaneous negatives. It is extremely easy to use, and is small enough to be carried about in the hand.

Kodiak, see Kadiak. Kodok, see Fashoda.

Kodok, see Fabruda.
Kodungalur, or Cranganore, a tn. in
Cochin state, Madras, British India,
17 m. N. of Cochin. It was supposed to be the place where St.
Thomas first laboured, but there is no foundation for this statement. It originally belonged to the Portuguese, but was captured afterwards by the Dutch. Pop. 30,000.

Koeleria, a genus of Gramineæ, contains fifteen species, all of which flourish in temperate lands. The sole representative in Britain is *K. cristata*.

Koesfeld, a par. and tn. of Westphalia, Prussia, situated in the circle Koesfeld, 19 m. W. of Münster.
Manufs. textile goods. Pop. 9420.

Koffyfontein, a mining camp in the Orange Free State, S. Africa, situated 30 m. N.W. of Fauresmith. Pop. 5900.

Köflach, a tn. in Styria, Austria. There are coal mines in the vicinity.

Pop. about 3400.

Kohat, a tn. in the Kohat dist. of the N.W. Frontier prov., India, 37 m. S. of Peshawar by a military road which was opened in 1901 along the Kohat Pass. It is the military base for the S. Afridi frontier. Pop. 30,800.

Koh-i-nûr, one of the most famous diamonds in the world. When presented to Queen Victoria in 1850, it weighed 186½ carats, but by recutting it was reduced to 106½ carats. It is considered by some to be a portion of the Great Mogul diamond tion of the Great Mogul diamond which was in the possession of Aurungzebe in 1665. The K. belonged ir rican sleeping- 1739 to Nadir Shah, was in the possession of the rajah of Lahore in 1813 and was presented to Queen Victoric by the East India Company in 1850 Kohistan (land of mountains)

name given to mountainous regions in Persia, Afghanistan, India and Turkestan. In Persia it is part of the prov. of Khorassan, and ir India it comprises the mountains in

the north-western part.

Kohl, Johann Georg (1808-78), a German traveller and author, born at Bremen, where he ultimately became citylibrarian. Between 1838 and 1854 however, he visited all the chief dis-tricts of Europe and wrote descrip-tions of them. He visited America (1854-58) and made a series of maps

N. of Indianapolis. It has giass and steel works, and manufs. iron and rubber goods. Pop. (1910) 17,010.

Koko-nor, or Kuku-nor (Blue Lake), a lake and region of Central Asia. The lake lies between the Kuen-lun and the Nan-shan Mts. In the extreme N.E. of Tibet, near the boundary of the Kansu province. It is 60 m. in length, 40 m. in width, and is at an altitude of 9976 ft. It has no is at an altitude of 9976 ft. It has no outlet, and its waters are salt and bitter, being frozen for three months of the year. The region of K., which lies between Tibet, China, and the Gobi desert, is sometimes taken to include Tsaidam and the plateau of Odontala.

Kokra-wood and Goco-wood are terms applied to the wood of the Inga vera, a leguminous tree found in the West Indies, and also to that of Aporosa dioica, a Bengalese and Burger of the wife Fish which was the Bengalese and Burger of the wife Fish which was the second to the second se mese tree of the order Euphorbiaceæ.

Kokura, a scaport tn. in Kiushiu, Japan, 100 m. N.E. by N. of Nagasaki.

Pop. 37,000.

Kola, a tn. in the gov. of Archangel, situated on the peninsula of Kola, and is the most northerly town

Kola, and is the most negative to a in Russia. Pop. about 600.

Kolapur, see Kolhapur.

Kolar: 1. The cap. of Kolar dist. in Mysore, India, 43 m. E. of Bangalore. Turkey-rearing for export is blankets. Pop. 13,500. The K. gold fields in the district had an output of over 500,000 oz. in 1909. The district has an area of 2845 sq. m., and a pop. of 750,000. 2. A large freshynter lake situated midway he freshwater lake, situated midway between the deltas of the Kistna and Godaveri Rivers, in the Madras Presidency. It drains into the Bay of Bengal on the E. The area is 100 sq. m., but this is being reduced by embankments, etc. In the dry season traces of ancient villages may be observed in its bed.

Kolarians, the name given by Sir G. Campbell (1866) to various hill-tribes of Central and E. India (c. 2,000,000-3,000,000 in number), dwelling in the jungle and mountain districts W. and S.W. of Calcutta in the Bengal Presidency. They represent the most remitting departs. sent the most primitive element in the population of Hindustan, and the population of lindustata, and were probably some of the earliest inhabitants of the peninsula. There are about ten chief tribes and Kolarian languages, including the Munda-Kols of Chota Nagpur, the Larka-Kols or Ho of the Singbhum district, the Bhumij of W. Bengal, the Santals, the Karia, and the Juang or Patun. These latter per the lowest type mere. Bhumij of W. Bengal, the Santals, Kolivan, a tn. in the gov. of the Karia, and the Juang or Patun. Tomsk, Siberia, Russia, on the R. Ob, These latter are the lowest type, mere 120 m. S.W. of Tomsk. Pop. 12,000.

Kojetein, a tn. of Moravia, Austria, hunters and fruit-gatherers with very 32 m. E.N.E. of Brünn. Pop. 6333. little civilisation. 'Kol' is the basis of the word coolie,' these people Howard co., Indiana, U.S.A., 60 m. being very ready to hire themselves N. of Indianapolis. It has glass and of the contract system. Some ethnosized well-and the contract system. Some ethnosized well-and the contract system. logists class K. with Dravidians, but the former are far less cultured, and their language is radically different. See Nottrott, Grammatik der Kolk-Sprache, 1882; Cust, Modern Languages of the E. Indies, 1878; Rowney, Wild Tribes of India, 1882; Caldwell, The Languages of India, 1875; Gait and Risley in Census of India, 1901, 1903; Dalton, Descriptive Ethnology of Bengal, 1872.

Kolberg, or Colberg, a seaport of Pomerania, Germany, 2 m. from the Baltic, 76 m. N.E. of Stettin. There are iron foundries and saw mills, and manufactures of woollens, spirits, and machinery; salmon and lamprey fishing is carried on. K. is one of the oldest towns in Pomerania, and was formerly capital of the duchy of Cassubia. It was captured by the

Cassubia. It was captured by the Swedes in 1631, attacked by the Russians in 1758, 1760, and 1762, and by the French in 1806. Pop. 24,909. Kolding, a tn. of Jutland, Denmark, situated in Veile co., on the Kolding Fiord, 29 m. S.S.W. of Horsens; the depth of the harbour is 20 ft. The royal castle of Kolding-bus, dating from 1248, was burned.

has, dating from 1248, was burnt down in 1808. Pop. 14,219. Kolguef, or Kalguef, an island in the gov. of Archangel, Russia, ex-tending from 66° 42' to 69° 30' N. lat., and from 48° 15' to 49° 55' E. long. It

and from 45 15 to 49 55 E. 10ng. It is visited by hunters for wairus, white bears, and various species of birds. Area 1350 sq. m.

Kolhapur, or Karvir, a feudatory state in the Bombay Presidency of British India. It extends from the midst of the Western Ghats into the Bleir of the Descriptions. Plain of the Deccan; iron ore is found and stone is quarried. The state is level in the E., and the sugar cane, rice, cotton, tobacco, and vegetables are grown; there are manufactures of hardware and pottery. The state, which is well governed and prosper-ous, has an area of 2816 sq. m. and a pop. of 930,000. The cap. of the pop. of 930,000. The cap. of the state, Kolhapur, is a picturesque town with several fine public build-It was formerly a Buddhist centre, and many Buddhist remains

are to be seen in the town and vicinity. Pop. 60,000.

Kolin, or Neu-Kolin, a tn. of Bohemia, Austria, on the Elbe, 40 m. E. of Prague. It has steam mills, breweries, sugar refineries, and manufactures of starch, syrup, and potash. Pop. 16,442.

of Friesland, Netherlands, 17 m. N.E. of Leeuwarden. Pop. (com.) 7808.

Lorraine, Germany, on the R. Ill, 40 m. S.S.W. of Strassburg. A branch of the Rhine and Rhone Canal passes through the town. The manufs. include cottons, woollens, silks, jute, and there are dyeing, brewing, tan-ning, and coach-building industries.

From 1697 to 1871 the town was held by the French. Pop. 43,808. Kolmar, or Chodziesen, a tn. of Prussia, in the prov. of Posen, and 40 m. N. of that town. Pop. 7161.

Köln, see Cologne. Kölnische Zeitung, a German daily newspaper, published at Cologne, with three editions daily. It is of very long standing, having been published for more than two centuries. with the exception of a short break between 1809 and 1813, when it was suspended by Napoleon. It has always been noted for its enterprise in obtaining reliable news at an early date, and has been constantly associated with the cause of Liberalism. most distinguished editor was Joseph Dumont, who accepted the post in 1847 and conducted the paper through the stormy period following on the revolution of 1848. The paper gives great prominence to the debates in the German Reichstag, and has frequently been the vehicle of semi-official communications by Bismarck and other German chancellors.

Kolo, a tn. in the gov. of Kalisz, Russian Poland, 45 m. to the N.E. of Kalisz. Pop. 6000.

Kolomea, a tn. of Austrian Galicia, on the R. Pruth, 45 m. W.N.W. of Czernowitz, at the foot of Austrian the southern slope of the Carpathians. It has petroleum repotteries. Pop. 40,520. refineries

Kolomna, a tn. of Central Russia, on the R. Moskva, 72 m. S.E. of Moscow. It is an industrial town, having starch works, cotton and silk tanneries, manufactures mills, tanneries, inaunacoures or tobacco, silk, leather, and earthenware, and a trade in hides, tallow, and grain. The marmalade 'postilla' is made here. Pop. 22,000.

Kolozsvar (Ger. Klausenburg), a

tn. and episcopal see of Transylvania, Hungary, 248 m. E.S.E. of Budapest, on the Little Szamor R. Formerly the capital of Transylvania, it is now tinuthe capital of Kolozs co. The town is well built and

university, muse There are two

Unitarian the other of the Reformed at Church; the town is the literary who centre of Transylvania and has signed, and in November of the same

Kollumerland, a com. in the prov. woollen goods, earthenware, beer, Friesland, Notherlands, 17 m. N.E. Leeuwarden. Pop. 60,000. Kolpino, a tn. in the gov. and 17 m. Kolmar, or Colmar, a tn. of Alsace-It has government iron works.

Pop. 8500. Kolyma, a riv. of Eastern Siberia, rising in the Stanovoi Mts., flowing into the Arctic Ocean in 69° 40′ N.

after a course of 1110 m.

Kolyvan, see Kolivan. Kom, see Kum.

Komarno, a tn. of Galicia, Austria, 20 m. S.E. of Lemberg. Pop. 6000. Komarom, or Komora, a tn. of Hungary, and cap. of the co. of Komarom, at the confluence of the Danube and the Waag, about 48 m. W.N.W. of Budapest. The fortress is situated quite near the town, the fortifications having been constructed by Matthias Corvinus. It was successful against the Austrians in 1848-49. Pop. 17,000.

Komati, a riv. of S.E. Africa, which flows first E. through the Transvaal, then N. near the eastern frontier of the Transvaal, discharging into

Delagoa Bay.

Komatsu, a tn. of Japan, situated near the N.W. coast of Hondo, 117 m. N.N.E. of Kyoto. There are manufactures of silk gauze, and most of the clay for the Terai and Kanagawa potteries is obtained here. Pop.13,500.

Komorn, Hungary, see Komarom. Komotau, a tn. of Bohemia, 21 m. S.W. of Teplitz, on a tributary of the R. Eger, at the foot of the Erzgebirge. The central factory for the manufacture of railway plant, etc., in Bohemia is here; paper making and the manufacture of silk is carried on, and there are oil mines near.

Komura, Count Jutaro (b. 1855), a Japanese statesman and diplomatist, born at Huiga. He finished his education at Harvard University, from which he graduated in 1877. In 1884 he entered the Foreign Office at Tokyo : he afterwards became charge at Peking, and d'affaires Japanese minister at Scoul. He filled similar posts subsequently at Washington, St. Petersburg, and at Peking at the time of the Boxer troubles; during this time he carned a high reputation for diplomatic ability and talent. In 1901 he was appointed Minister for Foreign Affairs, and con-

He mee

many educational establishments. year he met the Chinese representa-There are manufs. of linen and tives at Peking, when the treaty of

Peking was signed. It was in great was known as the battle of Sadowa. measure through his exertions that Pop. 11,064. the second Anglo-Japanese alliance was concluded. In consideration of these services he received from his sovereign the Japanese title of count, and was created a K.C.B. by King Edward VII. In 1906 he resigned from his ministership and, becoming a privy councillor, came as am-bassador to London. In 1908 he re-turned to Tokyo, and was again Minister for Foreign Affairs in the

second cabinet of Prince Katsura.
Konakry, the cap. of French W. Africa, situated on the island Tombo at the mouth of the Dubreka, in latitude 9° 30' N. and longitude 13° 40' W. It is connected with the mainland by an iron bridge. Rubber trees and coffee are cultivated, and the

town has many factories.

Kong: 1. A tn. in the Kong co.
of French W. Africa, situated in
latitude 8° 55' N. and longitude
4° 10' W. In 1893 the protectorate
was attached to the Ivory Coast colony. K. has a trade in cloth and gold. Pop. 13,000. 2. The name given to a range of mountains which were supposed to run parallel with the Guinea coast of W. Africa. The expedition of Captain Binjer, in 1888, discovered that such a range did not exist, but that the region is of a plateau nature with peaks reaching 6000 ft.

Kongju, a tn. of Korca, situated 80 m. S. by E. of Seoul. Pop. 36,000. Kongmun, a tn. of China, in the prov. of Kwang-tung, situated near the Hsi Kiang R., 47 m S.S.W. of Canton, Pop. 62,000.

Kongsberg, a tn. in the Norwegian prov. of Buskerud, 43 m. W.S.W. of Christiania, on the R. Laagen. It has government silver mines, discovered in 1623, iron mines, a royal mint, manufer of owner and graner deep and manufs. of arms and gunpowder, and

a fine church. Pop. 6000.

Konieh, or Konia (ancient Iconium), a walled tn. of Asia Minor, situated at the S.W. extremity of the central plain, 143 m. S. of Angora. K. is an archiepiscopal see of the Greek Church, and has manufactures of woollen goods, leather, and carpets. There are many interesting ruins in the town. From 1097, when Nicea was captured by the Crusaders, K. was the capital of the Seljuk sultans. The town was much visited by fugitives from Persia, etc. At time of the Mongol invasion At the the Osmanli empire captured it in 1472.
Of recent years the prosperity of K.
has increased. Pop. 60,000.

Königgrätz, a tn. of Bohemia. Austria, on the Elbe, 65 m. E.N.E. of Prague. It is famous for its battle in 1866, in which the Prussians were victorious over the Austrians; this

Königinhof (Bohemian Drur Kra'-love), a tn. of Bohemia, on the l. b. of the Elbe, 70 m. N.E. of Prague. It has cotton and linen manufs. Here, in 1817, were discovered the famous Konigunhof MSS., and in 1866 the Prussians defeated the Austrians.

Pop. 15,062.

Königsberg: 1. A tn. and fortress, cap. of E. Prussia, on the Pregel, 5 m. from the Frisches Haff and 25 m. from Pillau on the Baltie. It consists of three main parts: the Altstadt (which grew up round the castle of the Teutonic knights, 1255), the Kneiphot, and Löbenicht. From 1525-1618 it was the residence of the dukes of Prussia, and is now the second capital and residence of the kings of Prussia. Its river communication with Pregel, the Kurisches Haff, and Memel make it very important. Among its chief buildings portant. Among its chief buildings are the Gothic cathedral (founded 1333) with the 'Stoa Kantiana' adjoining, the university (1544), famous since the time of Kant (1724-1804), and the Schlosskirche, where both Frederick I. and William I. were crowned. Hemp, flax, tow, flour, corn, sugar, and timber are among the exports; coal, iron, and herrings among the imports. There are also manufactures of machinery, ware, bricks, lime, yarns, woven textiles, wood pulp, chemicals, and leather. The marchpane (marzipan) of K, is famous. Pop. 245,963. See Schultze, Königsberg und Ostpreussen zu Anfang 1813, 1901; Gordak, Wegereiser (Wegereiser 2. A tn. of 1 35 m. S.W. c

Königsfeld, a tn. of Moravia, Austria, 3 m. N.N.W. of Brünn.

Pop. 13,082.

Königshütte, a tn. of Prussia in the prov. of Silesia, 6 m. S. by E. of Beuthen. It has the largest iron Beuthen. It has the largest iron works in Silesia, zine and steel works. works in Silesia, and and bricks is carried on; there is also a trade in coal and timber. Pop. 72,640.

tes ' ster of Count. N. Germany. of Augustus ĸ. Sh the Strong of Poland, and had a son by him, the famous Marshal de Saxe. In 1697 she was made abbess of Quedlinburg, but lived in Dresden. Quedlinburg, but lived Berlin, and Hamburg. Her beauty was as remarkable as her intellectual qualities, and she was described by Voltaire as the most famous woman

Königsmark, Philipp Chrisopher, Count of (1662-94), a Swedish officer of noble birth, and friend of Augustus of Saxony. He is chiefly remembered as the lover of Sophia Dorothea, wife of the electoral prince, George of Hanover, who afterwards became George II. of England. On the dis-covery of the intrigue K. was covery assassinated.

Königssee, a lake in the extreme S.E. of Bavaria, surrounded by pre-cipitous walls of rock, among which is the Watzmann Mt. (8800 ft.). In the midst of the waters is the castle of St. Bartholomew. The lake has a length of 5 m., a perimeter of 17 m., and a depth of over 700 ft., and drains ultimately into the Salzach, a tributary of the Inn.

the Königsstuhl, name of summit of the chain of the Black Forest, on the r. b. of the R. Neckard, having an altitude of 1900 ft. above sea-level. In ancient times it was here that the electors of Germany used to choose their emperor.

Königstein, a tn. in the kingdom of Saxony, situated close to the I. b. of the Elbe, 22 m. S.E. of Dresden. Its fortress is built on a rock 1180 ft. above sea-level and 450 ft. above the surrounding country, and is one of the few in Europe never taken; the royal treasures were sent here during war, and it is now used as a state prison. Paper making is carried on in the town. Pop. 3924.

Königswinter, a tn. in the Rhine province, Prussia, situated on the r. b. of the Rhine, with the Drachenfels behind it. Pop. about 4000.
Konitz, a tn. in the circle of Konitz,

Konitz, a tm. in the circle of Konitz, Prussian province, W. Prussia, 43 m. N.N.W. of Bromburg. It has sawnills, iron foundries, woollen factories, and tile works. Pop. 12,010.
Koniz, a com. of Switzerland, situated in the canton of, and 3 m. to the S.W. of, Bern. Pop. 7683.
Konkan, or Concan, a tract of country in the Bombay Presidency, India extending for 200 m. near the

India, extending for 200 m. near the sea from Goa to Daman, and varying in width from 1 to 50 m. Rice fields and cocoanut plantations are generally cultivated, and the district is subject

to violent monsoon rains. Area 17,000 sq. m. Pop. 3,000,000. Konotop, a tn. of Russia, in the gov. of, and 83 m. E.S.E. of the city of, Chernigov. It was the chief Polish frontier fortress from 1635 to 1648.

Pop. 27,000. Konrad von Würzburg, see CONRAD

VON WURTZBURG.

Konstantinhafen, a station of the German New Guinea Company, situated on the S.E. side of Astrolabe Bay on the N.E. coast of Kaiser Wilhelm Land, New Guinea Cotton, coffee, and cacao are cultivated. Konstanz, see Constance.

Koodov, see KUDU.

Koomassie, see Kumassi.

Kooringa, or Burra, a tn. of Burra co.. Australia, on Burra Creek, 85 m. N.E. of Adelaide. The first copper mine worked on a large scale, Burra-Burra, dating from 1845, is near, and

silver is also found. Pop. 3000. Kootenay Lake, a lake of British Columbia, situated to the E. of 117° W. long. It is about 60 m. long and

varies in width from I to 4 m.

Kootenay River, a riv. of British
N. America, which rises in the Rocky
Mts., British Columbia; to the N. of
51° there are several branches, which,
when united, flowin a southerly direction parallel to the Columbia R. After to the N.W.

again into

the Kootenay Lake (q.v.) after a course of 400 m. In its upper course it is very rapid, and navigation is only possible in about 30 m. near the Kootenay Lake. Gold and iron deposits are

Lake. Gold and iron deposits are found in its basin.
Kopais (ancient Topolias), formerly a marshy lake of Greece in the prov. of Beetia, formed by the waters of the R. Kephissus. Tunnels were cut through the mountains to drain the lake, and this was satisfactorily accomplished in 1893, forming a fertile plain of 100 sq. m. in area.

Kopek, or Copek, the name of a small Russian copper coin, worth

small Russian copper coin, worth the hundredth part of a rouble (2s.).

Köpenick, or Copenick, a tn. in the prov. of Brandenburg, Prussia, 8 m. S.E. of Berlin, on an island in the Spree. There are manufs. of shoddy, chemicals, glass, linoleum, carpets, and sugar; and saw and flour mills. Pop. 30,882.

Kopparberg, or Falun, a län or dist. of Central Sweden to the N.W. of Stockholm. There are lead, zine, iron, and copper mines. The cap. is Falun. Area 11,522 sq. m. Pop.

233,874. Kopreinitz, see KAP. Hungary. RONCZA

Koprili, Koprülü, or Kuprili, a tn.

in the Europ Varda

ft. It Pop. 15,000.

Köprili, or Köprülü, an Albanian family, several of whose members became celebrated Turkish statesmen. The most famous are: Mohammed (1585-1661), who became Grand

Turkey could no longer resist the

cluded the treaty of Carlowitz (1699). Ahmed (1630-76), son of Mohammed, became prominent at an early age, and was made Grand Vizier in 1656. He resolutely opposed the Imperial forces and invaded Transylvania. Though he was unsuccessful in the field, sustaining defeat at St. Gotthardt, he succeeded in obtaining the peace of Vasvar, by which the Turks retained the fortress of Grosswarden. Mustafa (c. 1640-91), brother of Ahmed, who saved the life of Soliman III. during the rebellion against Sultan Mohammed IV., and was on the former's accession made Grand us cam-

forces,

Servia, and capturing Belgrade and assisting Emerich Tököly to become king of

Kopyczynce, a tn. of Galicia, Austria, 33 m. S.S.E. of Tarnopol. Pop.

7350.

Korah, an Israelite, the story of whose rebellion against the sacerdotal pretensions of the Levites is told in Num. xvi. Here we read how. on Here we read how, on account of their rebellion against Moses, Korah, Dathan, and Abram were all destroyed at the word of Moses.

Koran, The (Arabic karaa, to read), the sacred book of Islam, consists of the 'Revelations' received, accordthe Revelations received, according to its founder Mohammed, from God, and compiled after the prophet's death by his secretary, Zaid-ibn-Thabit, by order of the Caliph Abu Thabit, by order of the Caliph Abu Bekir. The book is written in Arabic, and consists of 114 suras or chapters of varying length, which are arranged according to size, the longest first. They are not numbered, but bear distinctive headings, such as the Cow, the Star, Congealed Blood, etc., taken from the particular chapter. Every from the particular chapter. from the particular enapter. Description the particular enapter but one begins with the formula, 'In the name of God, the Moreiful the Compassionate.' It is generally stated whether the sura was revealed at Mecca or at Medina. chief doctrines contained in the book are that there is one God, one true religion, and a day of judgment, and that at certain times God sent prophets to bring men back to the truth, the greatest being Moses, Christ, and and alm Mohammed. There are vivid pictures the Yal of rewards and stories taken from

there are special la particularly as to complete resigna-sables, tigers, and panthers, tion to God's will. The Jewish in-manufactures of K. include

forces of the German empire, he con- held in the utmost reverence by all Moslems. Seo *The Koran*, trans. into English by E. Sale; and *The Koran*, its Composition and Teaching, by Sir W. Muir.

Korannas, Koranas, Koras, or Koraquas, a tribe belonging to the Hottentot family, though with an admixture of foreign elements, which dwells along the Orange R. and in Cape of Good Hope. They revolted

in 1882 and were forcibly suppressed. They are indolent in temperament. and given to drinking and theft. Korassan, scc Khorassan.

Korat, the cap. of the prov. of Nakawn Racha Sema, Siam. It lies 170 m. N.E. of Bangkok, with which it is connected by rail. It is situated in a silk-producing district. Pop. 7000.

Kordofan, a prov. of Anglo-Egyptian Sudan, between Darfur and the White Nile. The surface is flat, save in the S., where are the Jebel Nuba Mts. During the rainy season, which lasts from June to September, the vegeta-tion is luxuriant, but in the dry season the country is almost a desert. The climate is fairly healthy. Groundnuts, cotton, tobacco, and millet are grown, and ostrich feathers, gum arabic, hides, and ivory are exported.

arabic, hides, and ivery are exported. The most important tribes are the Nubas, Kababish, and Hasanieh. The capital is El Obeid. Area 130,000 sq. m. Pop. 500,000.

Korea, or Corea (Cho-sen, Dai Han), now forming part of the Japanese empire, is a peninsula of E. Asia, lying S. of Manchuria, between the Vollow Sea and the Sea of Inpan It. Yellow Sea and the Sea of Japan. is about 600 m. long by 135 m. wide. A cordillera traverses the peninsula throughout its length; the mountains slope precipitously and are very near the coast on the E. side, leaving only a narrow strip of land available for cultivation. On the W., however, the mountains have a gentler slope, and as this portion is well watered, it is exceedingly fertile. The highest point in the range of mountains reaches 8700 ft. Many bays and harbours are found round the W. coast, and many islands; on the S. and E. coast harbours are not so numerous. The tides are strong and the water shallow off the E. c and alm

icipal crops are wheat, cotton, The fauna llet, and hemp. stags, hares, foxes, wolves, fluence is very evident throughout, pottery and porcelain, and swords, and Mohammed's ideal was to unite one the three chief religions he cultural work. The cultivation of found in his country, Judaism, Christon on a large scale was begun tianity, and Heathenism. The K. is by the Japanese in 1905, and has been

Apocrypha, and th

continued with success. commencement of the 20th century the trade of K. has increased considerably. The minerals of the country include coal, iron, silver, crystal, tale, and gold, of which £901,675 was exported in 1910. The chief imports of the country are cotton and woollen goods, metals, and firearms; the chief goods, metals, and firearms; the chier exports are ginseng, beans, rice, cotton, silk, cattle, and hides. The value of the former in 1910 was £4,061,175, and of the latter £2,032,2525 (exclusive of gold). The principal railways are from Seoul to Fu-san (a distance of 267 m.), from Fu-san to Masan-po, from Seoul to the Yalu (300 m.), and from Chemulpo to Seoul (30 m.), besides several branch lines. The total mileage in 1911 was 6774. The railways are all the property, and under mueage in 1911 was 6/4. The rainways are all the property, and under the control, of Japan. The treaty ports are Seoul, Chemupo, Fu-san, Gensan, Mokpo, Chenampo, Kunsan, Ping Yang, Songchin, Yongampo, Chunjin. Shinwiji, and Wi-ju. The privilege of owning mines in K. was extended to foreigners by the Mining Regulations of 1906. Koreans belong to the Mongol family, but are Mining Regulations of 1906. Roreans belong to the Mongol family, but are distinct in features, dress, and custisting tariff for ten years. See Mrs. toms from both the Chinese and Bishop, Korea and her Neighbours, Japanese. The former language is 1898; J. S. Gale, Korean Sketches, much used for the second statement of
to the Turania and is polysy vowels and four

capital of the country from 910 to 1392 was Singdo; Scoul, with a population of 278,958, is now the capital. The native annals date back to 57 B.C., but until the 4th century have little historical value. nave nutice instorical value. The country was divided about the first century A.D. into the three kingdoms of Kokuryö in the N.W., Pekché in the S.W., and Silla in the E. Silla overcame the other provinces and conquered the Japanese province of Mimana in the S. some time in the the century. From this time until the 4th century. From this time until the 10th century the country was very prosperous; Buddhism was intro-duced from China, together with various arts of Chinese civilisation. Kokuryö overcame Silla in the 10th century, and conquered the penin-sula. K. aided Kublai Khan as a vassal of China in his futile invasion of Japan in the 13th century. In 1392 was founded the dynasty which reigned until 1910, and the country was named Cho-sen. During the 14th century Confucianism was established as the state religion instead of Buddhism. From 1592-97 the Japanese occupied K., but were driven out by the Chinese. Christian missionary effort was begun at the end of the Pop. 2500.

Since the 18th century, but until relations had been opened with foreign countries the missionaries were severely persecuted. Treaties were made with Japan in 1876, with U.S.A. in 1882, and with Great Britain in 1883, and with most European countries subsequently. In 1894 the Japanese and Chinese invaded the country to put an end to the unsettled conditions that pre-vailed. The Chinese were soon crushed, and by the peace of Shimoroseki, 1895, K. was declared independent, the island of Formosa was ceded to, and an indemnity of \$35,000,000 extracted by, Japan. The king in 1899 changed the name of Korea to Dai-han, and assumed the title of emperor. By the treaty of Portsmouth, K. was formally made a suzerainty of Japan (see Russo-Japanese War). By the treaty of Aug. 22, 1910, the Emperor of K. made a complete and permanent cession to the Emperor of Japan of all rights and sovereignty over the country, which was renamed Cho-sen; the Japanese resident general was given the title of governor-general. Japan guaranteed to make no change in the

5, etc.

Strait of, the channel be-S.E. extremity of the ninsula and the Japanese Kiushiu. It is 102 m. in island of Kiushiu. width. Near the centre is the island of

Tshushima, off which the Russian fleet was destroyed by the Japanese, 1905. Korets, a tn. of Russia in the gov. of Volhynia, 76 m. W.N.W. of Zhitomir. It has woollen cloth mills. Pop. 10,000.

Korigaum, a tn. of British India in the Bombay Presidency, on the Bhima, in the dist. of, and 16 m. N.E. of the tn. of, Poona. Here, on Jan. 1, 1818, a small number of British troops defeated an army of the Peshwas, estimated at 20,000 strong.

Kormend, a tn. of Hungary in the prov. of Eisenburg, 46 m. S. of Odenburg. Pop. 6300.

Kornegal, Kurnagalli, or Kurunegala, a tn. of Ceylon, 24 m. N.W. of Kandy. Once the capital of Ceylon, it is now a place of will income. it is now a place of pilgrimage for Buddhists. Pop. 5000.

Korneuburg, a tn. of Lower Austria, on the l. b. of the Danube, opposite Klosterneuburg, 9 m. N. W. of Vienna. It is a steamboat station, and has a trade in salt and corn. Coarse textile goods are manufactured. Pop. 9058.

Koroit, a tn. of Victoria, Australia, in Villiers co., 43 m. N.E. of Portland.

a fortified scaport of : co. Greece, in the prov. of Messenia, and situated on the S.W. coast of the Messenia Gulf, 16 m. S.E. by E. of

Navarino. Pop. (com.) 8500. Körös, a riv. of Hungary, rising in Transylvania and after a western course of 340 m. it joins the Theiss

at Csongrad.

Korosko, a vil. of Upper Egypt, on the r. b. of the Nile, 112 m. S.S.W. of Assuan. It is the starting-point for caravans, crossing from the Nubian Desert.

Körös-Ladany, a tn. of Hungary, in the co. of Békés, 46 m. S.S.W. of Debreczin. Pop. 7500.

Körösmező, a small tn. of Hungary, in the co. of Marmaros. Pop. 9000.

Korostyshev, a tn. in the gov. of Kiev, Russia, situated S.W. by W. of the town of Kiev.

Korotcha, or Karotcha, a tn. of Russia in the gov. of Kursk and 68 m. S.E. of the town of Kursk. 15,000.

Korotoyak, a tn. of Prussia in the gov. of Voronezh, and situated on the R. Don. Pop. 10,000.

Korsakovsk, a tn. of Sakhalin, Japan, situated on Aniva Bay, with a good harbour.

Korsör, a scaport on the W. coast of Zealand, Denmark, situated in the prov. of Sorö, 61 m. W.S.W. of Copenhagen. The harbour is formed by a bay of the Baltic. It is the calling-place for steamers between Kiel and Norway, and the exports are fish. bacon, and cereals. Pop. 6000. Kortrijk, scc Courtrai.

Korumburra, a tn. of Victoria, Australia, situated in Mornington co. and 68 m. S.E. of Melbourne. Pop.

4000.

10,000.

Korvei, or Korvey, see CORVEI. Kos, Cos, Stanchio, or Istankeui, an island, some 25 m. long, with an area of 110 sq. m., at the mouth of the Gulf Ægean Sc Asia Minor. ltana raisins, wheat, maize, sesamum seed, and melons are the chief exports. Near Cos or Stanko, the only town, lie the ruins of Asclepius' temple, the precincts of which were marked out

Kosciusko, the highest mountain summit of Australia, with a height of 7328 ft. It is situated in the S.E. of New South Wales, and forms a part of the Australian Alps. In 1897 a meteorological station was established here.

Pop. about

several centuries B.C.

17 the

the revolution of 1794 broke out, he put himself at the head of the national movement in Cracow, and was appointed dictator and commander-inchief. At first victorious, he was hemmed in by Russians and Prussians at Warsaw, and, forced to take the field, he was defeated and taken prisoner at Maciejowice. Released two ve

effort cause

then retired to follow agricultural pursuits in France and Switzerland. He died in Switzerland and was buried in Cracow.

Kosel, see Cosel. Kösen, a watering-place and summer resort of Prussia in Saxony, on the R. Saale, 20 m. E.N.E. of Weimar. Pop. 3006. Kosfeld, see Koesfeld.

Kosher, or Kasher, a Hebrew word eaning 'fit,' and is therefore meaning opposed to pasul (unfit). It is especially applied by Jews to meat which has been slaughtered according to Mosaic law.

Kosi, a tn. in the United Provinces, in the dist. of Muttra, India. Pop. about 11,000.

Köslin, or Coslin, a tn. of Prussia in the prov. of Pomerania, 24 m. E. of Kolberg. The manufactures consist of machinery, paper, tobacco, soap, etc. There is a cadet academy and a deaf and dumb asylum. Pop. 23,247. Koss, see Coss.

Koss, see Coss.
Kossovo, or Kosovo, a vilayet of
European Turkey, with an area of
12,700 sq. m. It consists of the
sanjak of Uskub in Macedonia, and
those of Prizren and Novibazar in N. Albania. Formerly the vilayet was a part of Servia, and its northern districts are still known as Old Servia. The scene of many battles during the Balkan War of 1912-13. Pop. 1,100,000.

Kossuth, Lajos (1802-94), a Hungarian patriot, born of noble but poor family at Monok, in Zemplin, Hungary. He studied law at the Protestant college of Sarospatak, and practised for a time, but gave most of his life to the cause of Hungarian nationalism. After serving a sentence of four years for publishing reports of the debates of the National Assembly, he edited for three years (1811-11) the Pesli Hirlap, the organ of the National party, and came to be recognised as one of the Kosciuszko, Tadeusz (1746-1817), leaders of the National movement, a Polish soldier and patriot, born at He was Minister of Finance in the Siccinnowice in Lithuania. A love Humarian ministry of 1848, and affair drove him to the United States ishortly afterwards, when a dispute (1777), where he fought for the arose with Austria over the revolt of

the ~ ence \cdot the

His Villagos, he was forced to flee to Turkey, where he was made a prisoner, but afterwards released. Nyasaland, on the W. s He then visited England and the United States, living in England for several years in close connection with He made several further attempts against Austrian rule, but his activities in that direction ceased after the Austro-Hungarian recon-

after the Austro-Hungarian reconciliation of 1867. He died at Turin.

Kosten, a tn. of Prussia in the prov. of Posen, 25 m. S.S.W. of the tn. of that name. Pop. 7810.

Kostendal, or Kustendil, a tn. of Bulgaria and cap. of the prov. of K., on a trib. of the R. Strauma, 43 m. S.W. of Sofia. It is the scat of a Greek metropolitan, and is noted for its bot minoral surings. Pop. 12 000 its hot mineral springs. Pop. 12,000.

Koster. Henry (d. 1820), an

Koster, Henry (d. 1820), an Englishman resident in Brazil, whose book, Travels in Brazil (2 vols., London, 1816), Southey reviewed favourably in the London Quarterly Review, xvi. 344-387.

died in Pernambuco.

Kostheim, a tn. of Germany in the grand-duchy of Hesse, on the R. Main at its junction with the Rhine. Pop.

Kostroma: 1. A gov. of Central Russia. Most of the surface of the country is covered by forests, and the amount of produce is insufficient for the needs of the inhabitants. Cotton and woollen goods, also wooden articles, are manufactured. Area 32,490 sq. m. Pop. 1,700,900. 2. The cap, of the gov. of that name, situated near the confluence of the Kostroma and Volga Rivers, 200 m. N.E. of Moscow. It contains a cathedral of the middle ages and carries on a trade in corn, linen, timber, leather, and other articles. Pop. 44,893.

Köszeg (Ger. Guns), a tn. in Hungary, 20 m. from Odenburg. It has important cloth factories, and a brisk It was the trade in fruit and wine. It was the scene of the defeat of the Turkish army under Solyman in 1532. Pop.

7500. Kotah, a walled tn. on the r. b. of the Chambal, dap. of Kotah state, in the Rajputana agency, India, 120 m. S. of Jaipur. It contains an old and new palace, many fine temples, be-sides schools and the public library (the Crosthy aite Institute). It is very unhealthy. The chief manuf. is that of muslin. (Pop. 34,000.

Kotalby (d. 716), a Persian general,

was one of the greatest of Islam's con-querors. Hadidjadj appointed him half of the Russian government and governor of Khorassan in 704. The distinguished himself by his opposi-

ar he took possession of (modern Bokhara). In ited the Chinese, and he onquered Kashgar, and

Kotakota, a station in Nyasaland, on the W. shore of Lake

. and is Arab caravans t

Kotayam, or Kottayam, a tn. in Travancore, India, 32 m. S.E. of Cochin, noted as being the head-quarters of the Syrian Christian Church. Pop. 18,000. Kotelnoi, see NEW SIBERIA ISLANDS.

Köthen, or Cöthen, an industrial tn. in Anhalt, Germany, near Halle, with manufs. of sugar and chemicals. It was the cap. of the duchy of Anhalt-Köthen from 1603 to 1847. Pop. 23,411.

Kotka, a seaport in Viborg, Finland, on the Helsingfors Railway. It is a centre of the timber trade, and

the chief port for the exports and imports of E. Finland. Pop. 11,000.
Kotokou (reigned 645 - 654 A.D.).
Emperor of Japan, added lustre to his name by the many reforms he accomplished in the provincial administration. Moreover he appointed three ministers to advise and control a council of eight.

Kotonu, or Kutanu, a tn. and port of Dahomey, W. Africa, 17 m. W.S.W. of Porto Novo. It was ceded to France

in 1868.

Kotri. a tn. in the Karadir dist., Sind, British India, on the r. b. of the

Indus. Pop. 7500.

Kottbus, or Cottbus, an industrial tn. on the R. Spree in the Prussian prov. of Brandenburg. It has manufs. of cloth, linens, carpets, and machin-ery, and brewing and tunning are also

carried on. Pop. 48,644.
Kotur, a tu. and fort of Persia in the prov. of Azerbaijan, 110 m. W.N.W. of Tabriz. Pop. 8000.

Kotzebue, August Friedrich Ferdind von (1761-1819), a German amatist, born at Weimar, held nand von dramatist, various public offices in the Russian service and spent a short time in banishment in Siberia (1800). He was a prolific writer of plays, satires, tales, and historical works. His best known dramas are: Armuth und Edelsinn; Menschenhass und Reue (Eng. trans., The Stranger, 1798); Die Kreuzfahrer; Die Hussiten vor Naumburg; Der arme P by the skilful

was a attacke bitterly

tion to the current liberal tendencies. Ismail. Tolstoi refers to him as 'the In particular he ridiculed the Burschenschaft movement, and was on that account assassinated by a Jena student named Sand at Mannheim. His complete works appeared in 44 vols. (1827-29). See Life by Cramer, 1819; Dörling, 1830; and Rabany's Kotzebue, a Vic et son Temps, 1893.

Kotzebue, Otto von (1787-1846), a

German explorer, son of August Friedrich above, born at Revel. Friedrich above, Accompanied Krusenstern round the world (1803-6). Made two prolonged voyages to the Pacific, discovering in the former (1815-17) the Suwaroff and Krusensternislands and Kotzebue Sound, and visiting in the latter (1823-26) the islands of the Sand-

Caucasus and Poland, he was given the command of the Caucasian army. During the Crimean War (1853) he was attached to Prince Gortschakoff, and from 1874 to 1880 acted as governor-general of Poland.

Kötzschenbroda, a tn. in the kingdom of Saxony, Germany, 3 m. N.W. of Dresden. Pop. 6445.

Kounng (1018-86), a Chinese statesman and historian, chiefly celebrated for his history of China, Tscu-tchi-Thoang-Kian. He departed from the usual custom adopted by former Chinese historians of chronicling facts under distinct sections, political, social, etc., and made his arrangement a chronological one. His book commences with the third emperor of China, Hoang-Ti, and ends at the beginning of the 10th century.

Kouan-Han-King, a Chinese dramatist, flourished in the 13th century under the dynasty of Youch. Among his plays are: The Anger of Thou-Ngo; The Jade Mirror: The Dreams of Pac-Kong; and the Palace of Pleasure. Notice of them will be found in Bazin's Siècle des Fouen.

1850.

Koumiss, or Kumiss, a beverage made from mare's milk fermented, and often served up with cooked grain. It is a common refreshment

Kouropatkin, see KUROPATKIN. Koutouzof (or Kutusoff), Mikhail Ilarionovich (1745-1813), a Russian field-marshal, joined the army at the age of sixteen, fought against the Turks in 1770 and again in the war trade with Prussia and its factories of 1788-92, and gained especial disproduce nails and metal goods, mead, tinction at Shumm Otchakov, and and bone-meal. It dates back to the

genius of Russia, because during Napoleon's disastrous campaign of he proved so admirable generalissimo of the native forces. offering a most stubborn resistance to the emperor at Borodino and inflicting a crushing defeat on Ney and Davout at Smolensk.

Kovalevsky, Alexander (1840-1901), Russian embryologist, born near became a professor Vitebsk: Odessa and St. Petersburg. His research work includes the embryology of invertebrates; the life-history of a simple Ascidian (1866 and 1871), and the development of the Amphioxus (1867 and 1

the worm

pods.

pods. He Hacckel's Gastraa theory. Sophia Vasilyevna. Kovalevsky, Sophia Vasilyevna, better known as Sonja Kovalevsky (1850-91), a Russian mathematician, married in 1868 and went to Germany with her husband. At the universities of Heidelberg and Berlin she studied mathematics, and in 1874 re-ceived her degree from the uni-versity of Göttingen. In 1884 she was appointed professor in Stockholm. Her greatest distinction was the winning of the Prix Bordin from the Academy of Paris (1888). Besides mathematical dissertations of the highest merit, she wrote novels, and her fellow countrywomen may well be proud of her as a brilliant pioneer in the field of intellectual attainment. Kovel, a tn. of Russia in the Volhynia gov. on the R. Turiya, with considerable trade Pop. 18,000.

Koviaks, or Koryaks, a Mongoloid people of North-Eastern Siberia. They are divided into a settled fishing portion and a nomadic pastoral portion. Immense heads of reindeer are owned by the latter. Some of them have been Christianised, but the prevailing religion is Shamanism. are near akin to the Chukchis (q.v.).

They number about 5000

Kovno: 1. A gov. of N.W. Russia, with an area of 15,692 sq. m. The with an area of 15,692 sq. m. The surface is mostly plateau, and it is well watered by the Niemen, the Courland Aa, and the Duna, all of which are navigable. There are many lakes and murshes, and forests cover about one-fifth of the area. The climate is mild. There is a brisk tensit trade but there are few inof the Arabs of Africa and some of climate is mild. There is a brisk the tribes of Asia, particularly the transit trade, but there are few in-dustries, agriculture being the chief occupation of the people. Wheat, rye. onts, barley, potatoes, and linseed are exported. Pop. 1,775,900. 2. The cap. of gov. Kovno, 56 m. W.N.W. of Vilna. It is an important entrepôt for

11th century, and was a wealthy commercial city in mediceval times, but was plundered and burnt by Tsar Alexis in 1655. Pop. 75,000.

Kovrov, a tn. in Vladimir gov., Russia, on the Nijni-Novgorod line. Lepenica, 60 m. S.S.E. of Belgrade.

It has railway works and cotton mills.

Pop. 15,000.

Koweit, Kuweit, or Grane, a tn. in Asiatic Turkey, at the head of the Persian Gulf. It has an excellent harbour. It is of great importance as a port of entry for guns, rice, coffee, etc., and exports horses, pearls, dates, wool, etc. The Sheikh of K. is under treaty obligations (made 1899) with the Indian government. 25,000.

Kowloon, or Kaulun, a British peninsula of he i island of to

the Briti ng been acquired by the Peking Convention of 1860. The town of K. stands at the landward end of the peninsula in the province of Kwangtung. A railway runs from here to Canton, and the town contains the villa residences of the colonists, and also a sanatorium for the troops. 100,000.

Kowtow, or Kotou, a Chinese word made up of ko, knock, and tou, head. The act of K., or prostration, before the emperor consists in kneeling thrice, allowing the forehead each time to touch the ground. A Chinaman performs a K. as a

mark of reverence or homage.

Kozlov, a in. of Central Russia in the gov. of Tambov, on the R. Lyesnoi Voronezh, 45 m. W. by N. of Tambov city. Owing to its favourable position, it is an important trade centre. The exports are grain, cattle, meat, eggs, hides, tallow, etc. Pop. 45,000.

Kra, Isthmus of, situated about lat. 10° 20' N., connects the Malay Peninsula with the rest of Indo-China. A gap occurs here between the main mountain range and the mountains of the peninsula, and it has been proposed that this shall be the site of a new ship canal; this would shorten the route from Calcutta by nearly 700 m., and that from Burma

to Bangkok by over 1000 m.

Krafit, Barbara (1764-1825), an historical and portrait painter, born at Iglau, Austria, studied under her father, J. N. Steiner. She lived in Vienna, spent some years in various towns in Germany, and finally settled in Bamberg, Bishop Gotthard, Joseph II., Leopold II., and Francis II. sat Her genre pieces were much to her. admired, but she is chiefly noted for her portraits.

There is an arsenal, cathedral, and college.

Kraiova, see CRAIOVA.

Krakatoa, or Krakatao, a small volcanic island in Sunda Strait, between Java and Sumatra, in the Malay Archipelago. There was a phenomenal eruption here in August 1883. The sound waves generated by the explosions travelled 3000 m. Stupendous waves, towering 50 ft. high, overwhelmed shores and settlements, caused over 35,000 deaths, and actually reached Cape Horn (7818 m. away). On the island itself the highlands, which had risen over 1000 ft. above sea-level, were replaced by an abysm diving down as many feet below.

Krakau, or Krakow, Austria, see CRACOW.

Kraken, a fabulous sca-monster, measuring 1½ m. round, which, according to native legend, lurks round the shores of Norway.

Krameria, see Rhatany. Kranach, Lucas, see Cranach,

LUCAS.

Kranidion, or Kranidhi, a tn. of Greece, situated in the provinces of Argolis and Corinthia, about 24 m. S.E. by E. of Nauplia. Pop. 7000.

Krapf, Johann Ludwig (1810 - 81), an African missionary and traveller, born near Tübingen in Würtemberg, became a member of the Church Missionary Society, and proceeded to Africa, where he resided at Shoa, Mombasa, and Wanika (1839-46). He visited Usambara and Ukambari, discovered Mt. Erots, and mode the discovered Mt. Kenia, and made two journeys to Abyssinia. His works include: Reise in Oslafrika in den Jahren 1837-55, 1858 (Eng. trans. 1860); Focabulary of Six East African Languages, 1850; and A Dic-East tionary of the St Sec Church

Missionary Car Krasicki, Ignacy (1735-1801), Polish divine and poet, born in Dubiccko, Gallicia, who studied under the Jesuits and in Rome. He became bishop of Ermeland or Warmia (1767), and archbishop of Gnezne (1795). When Poland was divided between Russia and Germany (1772) K. went to Berlin, and through his witty disposition attracted the attention of Frederic II. In 1780 he consecrated the first Roman Catholic Church in Berlin, which had been erected through his Kragerö, a tn. of Norway in the influence. His writings in prose and prov. of Bratsberg, situated on the verse are on various subjects and re-

semble those of Alexander Pope in style and spirit; he is called the Polish Voltaire. His works include: Myszcis, or Mousiad, a mock-heroic poem, in which mice take the chief parts: Salires, supposed to be un-equalled in the Polish language, 1778; Monomachy, or Battle of Monks, 1778; Fables, 1780. Most of his works are translated into French and German; a collected edition was published in Warsaw in 1803.

Krasinski, Valerian, Count (c. 1780-1855), a descendant of an ancient and distinguished literary and ecclesiastical family of Poland. In 1830 he introduced Lord Stanhope's printhe introduced Lord Stanhope's printing-press, and began stereotyping an edition of the Bible into Polish. He was minister of a department of public instruction in Poland; when the revolution of 1830 broke out he joined the patriotic party and was later sent by Prince Adam Czartoryski on a diplomatic mission to England. When the Russians conquered Poland in 1831, K. found himself an exile in England. Here he lived self an exile in England. Here he lived by his pen, writing on Poland (see 1856, vol. i.,

is the Hisformation in

irite summer resort on the Duderhof Hills, 151 m. S.W. of St. Detarching by rail in the governn ssia. Has an

than 5500. Krasnovodsk, a fortress and sca-port on the Transcaspian Railway to Bokhara in Russian Transcaspin, opposite Bakuin Balkhan Bay, on the S. shores of the Caspian. Pop. less than 7000.

Krasnoyarsk, cap. of the gov. of Yeniseisk, Eastern Siberia, situated on the l. b. of the Yenisei R. The commerce of the city is connected chiefly with gold washings. Pop.

chiefly with gold washings. Pop. about 33,500.

Kraszewski, Jozef Ignacy (1812-87), a Polish author, born at Warsaw, educated at Wilna. A voluminous and versatile writer and author of numerous novels, principal among which are: The Magic Lantern, Under Italian Sicies; The Poet and the World, 1839; Ulana, 1843; Morituri, 1875. His poems are also very popular, and include: Anaficlas, a story of the traditions of Lithuania, a story of the traditions of Lithuania, and Satan and Woman. Among his works on travel and history are: Recollections of Odessa and History of Wilna. He was editor of the Athenaum at Wilna (1841-52), and in 1863 migrated to Dresden. Suffered imprisonment from 1884-86 for high treason. See Bohdanowicz, L. L. L. Wergereski 1879. J. I. von Kraszewski, 1879.

Kremenskaya, a tn. in the prov. of Don Cossacks, Russia.

Kreutzer, Conradin (1782-1849), a German composer, pianist, and clarinet-player, pupil of Albrechtsberger: he was connected with musical circles in Vienna, Stuttgart, musical circles in Vienna, Stuttgart, and Cologne principally, and his numerous operas, chamber-music, and vocal works carned for him a very considerable reputation. His best works are: Das Nachtlager von Granada, 1834; Der Verschwender, 1833, both of which are still occasionally performed; Cordelia, 1819; and Libussa, 1822. He also wrote an autobiography of some interest 1817. autobiography of some interest, 1847.

Kreuzer, a small copper coin (100 lx.=1 gulden) formerly in use in Austria, so called from the cross (Kreuz) stamped upon it. It was first coined in the 13th century, when it was of silver. Ks. were also used in S. Germany before the founding of the empire (60 kr. = 1 gulden), having the value of \$\frac{1}{3}d.

Kreuz Zeitung, or Neue Preussische Zeitung, a Prussian newspaper, published morning and evening, the organ of the Junker party and extremely Conservative in its politics.

Founded in 1848. Kriegspiel (the War Game) is a ecientific game of German origin, as its name denotes, in which the movements, etc., of war are imitated on a small scale. Marshall Keith in the small scale. Marshall Keith in the 18th century invented a game which he called Kriegs-schachespiel (war chess), but the game in its modern form was invented in 1824 by the Prussian officer Von Reisswitz. It was quickly adopted as a method of instruction in the Prussian army, and thence spread to the armies of all countries. The materials for the rame countries. The materials for the game are: Blocks cut and moulded to scale to represent different units of an army, and coloured in two different colours, some pairs of dividers, and measures of the same scale, and maps. If a small number of troops is engaged large scale maps are essential, more so than if large bodies are employed. Printed regulations are not of much service in K., and the decision of a competent umpire is more valuable. Three maps should be used, one for each of the contending armies, and one for the umpire. The umpire's map shows the position of both the opposing forces, but each of the other maps reveals only the troops of one side, and as many of the enemy as the side, and as many of the cheen, as the unpire decides would be visible in actual warfare. A general idea of the military situation is first given to each commander; this is followed by a 'special idea,' which gives details as to the disposition of troops, the character of the country, etc. Each

player then frames his orders, to which ! he is held. The time for a move is two minutes, and the troops can only be moved for such a distance as would have been traversed in actual fact in such a time. Smaller units yield to larger ones when attacked by them, and when artillery is firing on in-fantry, the loss of the latter is deter-mined by a table of odds in conjunction with a throw of the dice. Repulsed troops cannot come into action for five moves (ten minutes), and defeated troops for ten moves, whilst totally defeated troops are removed from the map. When an orderly is from the map. When an orderly is supposed to be taking orders across country, a throw of the dice must decide whether he clears each fence in his way or not. The information which a player obtains at K. is more accurate than would be the case in real warfare, but allowing for unavoidable unreality, military train-

ing and education may undoubtedly be furthered by a judicious use of the game. See The Tactical War Game (1884), trans. by MacDonnell.

Kriemhild, heroine of the Nibelwigen Lied, sister of Gunther, king of the Burgundians, is wooed by Siegfried, conqueror of Brunhild and possessor of the Nibelungen hoard. Brunhild's jealousy leads Hagen, Brunhild's jealousy leads Hagen, possessor of the Michael noard. Brunhild's jealousy leads Hagen, Gunther's vassal, to murder Sieg-fried while hunting, and K. then changes from a gentle wife into a woman thirsting for vengeance. She marries Etzel, or Attila, the Hun, invites the Burgundian chiefs to visit

her, and procures their destruction.

Kriens, a com, and vil. of Switzerland, in the canton of Lucerne, 2 m.

S.W. of that place. There are large iron works. Pop. 7140.

Kriloff, Krilof, or Krilov, Joan

Kriloff, Krilof, ar Russian Andreevitch (1768-1844), a Russian writer, born in Moscow. He began writing dramas at the age of twenty, but his fame rests upon his Fables, the first collection of which appeared in 1809; the second in 1811. They have been translated into English by Ralston, 1868, and Harrison, 1883. K. held an appointment in the Imperial Public Library from 1812

to 1841.

Krimmitschau, or Crimmitschau,

Krimmitschau, or Saxony, Germany, 8 m. from Zwickau. It manufs. vicuna wool, woollen yarn and cloth, buckskin, iron ware, and machinery.

Agra. He is represented as being brave and fearless, but crafty, while in the popular legends concerning him and in his worship as Vallabhacharva, one sees the most de-prayed side of modern Hinduism. He figures in the Harivansa-pairan and the Bhagara' of the great

bharata. mingled with myths of lightning and

fire, heaven and the sun.

Krishnagar, a tn. in Nadia dist.,
Bengal, British India, on the R.
Jalangi. Coloured clay figures are
manufactured. Pop. 26,050.

Kristiania, cap. of Norway, see

CHRISTIANIA.

Kristiansand, Norway, see Chris-TIANSAND.

Kristianstad, Sweden, see CHRIS-

TIANSTAD. Kristiansund, or Christiansund, a seaport tn. of Norway, 85 m. W.S.W. of Trondhjem, on three islands in the Atlantic which enclose its harbour. It was founded in 1734 by Christian VI. of Denmark. It exports large quantities of dried cod and salt fish. Pop. 13,012.

Krivoy-Rog, a tn. of Russia in the gov. of Kherson, and 100 m. thereof, on the R. Ingulets. Iron ore is ex-

krolevets, a in. of S.W. Russia, situated in the gov. of Chernigov, and 87 m. E. of that place. It has a noted cattle fair. Pop. 12,000.

Kronenberg, a com. and manufac-turing tn. of Prussia in the Rhineland prov., 3½ m. from Elberfeld. 12,942. Kronos, sec Cronus.

Kronprinz Wilhelm, a mail steamer belonging to the Norddeutscher Lloyd at Bremen. It was built in 1901, and has a speed of 23 knots, with dimensions 637 by 66 by 39 and a gross tonnage of 14,908.

Kronstadt, or Cronstadt: 1. A tn. and naval fortress of Russia, situated in the gov. of St. Petersburg, on the island of Kotlin, near the head of the Gulf of Finland, and 18 m. W. of St. Petersburg. Sir. was constructed

St. Petersburg. can be reached

public buildings dral, a marine hospital, schools, etc., addition to the naval works, arsenals, cannon foundries, etc., Pop. 28,804.

Krishna, a river, S. India, see Krishna, a Hindu deity, the eighth incarnation of Vishnu. His worship has been much in vogue in modern times. He was the son of Vasudeva and Devaki, and his birthplace is given as Mathura, between Delhi and left carry on the chief industry of the place. Founded by Peter I. in 1710, K. has always been the chief Russian naval arsenal in the Baltic. The harbour is ice-bound during the winter. Pop. 66,624. 2. (Hungarian Brassó) Atn. of Hungary, situated at and Devaki, and his birthplace is given as Mathura, between Delhi and left corrections. at a height of 1850 ft., it is an important commercial centre, having a lous works may be mentioned Paroles trade with Roumania and the Balkan d'um Révolté, 1884; L'Agrachic, so States. There is a Gothic cathedral dating from 1385. The manufactures include cloth, leather, cement, and candles, and there are also distilleries and petroleum refineries. Pop. 60,000.

Kronstadt, Father John of (1829-1908), a Russian priest whose real name was John Kitch Sergniev. He became priest of the English cathe-dral church of Kronstadt, after having studied at the theological academy of St. Petersburg, where he took his divinity degree in 1855. He soon obtained an extraordinary influence over people, and the enthusiasm over people, and the enousinsm aroused by his sermons led to miracles of healing being attributed to him. People of every class flocked to him with their bodily and spiritual troubles, and with the money thus acquired he founded numerous charitable institutions. He was violently opposed to the teaching of Tolstoi. His publications include: Ma Vie dans le Christ; Sermons sur le Dieu Créatur : Sermons et Instructions :

Creatur; Sermons et Instructions; Ouclques mols de Reponse aux fausses Doctrines du Comte Tolstoi, etc.

Kroonstadt, or Kroonstad, a dist. and tn. of Orango Free State, S. Africa, 110 m. S.S.W. of Johannesburg. The dist. is separated from the Transvaal by the Vaal R. Coal is mixed. Pen of tr. 8000

mined. Pop. of tn. 8000.

Kropotkia, Prince Peter Alexeivitch (b. 1842), a Russian geographer, nihilist, and author, born at Moscow of a noble family. In 1857 he entered the Corps of Pages at St. Petersburg. In 1862 he went with a Siberian Cossack regiment to Siberia, and In 1862 he went with a Siberian and was later appointed assistant Cossack regiment to Siberia, and professor of philosophy in consecurity distributed by the Ferench government, and sentenced in 1874 for spreading nihilistic describes and definitely adopted anarchism a little later. He was arrested in 1874 for spreading nihilistic describes and the went to Switzerland, but was expelled therefrom in 1881, and came to England for a year. In 1883 he was arrested at Lyons by the Frenchgovernment, and sentenced to five years' imprisonment, but as a result of repeated agitation in the French Chamber, he was released in 1886, when he returned to England is the returned to England in the French Chamber, he was released in 1886, when he returned to England is and was later appointed assistant professor of hilosophy in consequence of his Letlers on the Percedian Religion. In 1801 he was extraordinary professor of philosophy in consequence of his Letlers on the Prencisor of him Prencisor of his Letlers on professor of philosophy at Frankfort-on-the-Oder; ordinary professor of philosophy at English he was extraordinary professor of philosophy at Frankfort-on-the-Oder; ordinary professor of philosophy at English he was extraordinary professor of philosophy at English he was extraordinary professor of philosophy at Englist of the Was extraordinary professor of philosophy at English he was ex

and settled down. Among his numerous works may be mentioned: Paroles d'un Révollé, 1884; L'Anarchie, sa Philosophie, son Idéal, 1896; Menoirs of a Revolutionist. 1990; Modern Science and Anarchism, 1903; Biography of Asia, 1904; Russian Literature, 1905, etc., etc.

Krossen, or Crossen, a tn. of Brandenburg prov. Prussia, ht the condenburg prov. Prussia, ht the condenburg prov.

denburg prov., Prussia, at the confluence of the Oder and Bober, 32 m. S.E. of Frankfort-on-Oder. There is an old castle, and manufa of hosiery and woollen cloth. Pop. 7588.

Krotoschin, or Krotoszyn, a tn. o Brosen prov., Prussia, 60 n. N.N.E. of Breslau. It has brickworks and breweries, and a seat of the Prince of

Thurn and Taxis. Pop. 13,061. Thurn and Taxis. 199. 13,061.

Krüdener, Barbara Juliana von (1766-1824), a Russian mystic, was an aristocrat by birth and made an unhappy marriage with Baron von Krüdener. She is thought to have woven details of her own life into her romance, Valerie (1803). In later life, having come under the influence of naving come that the infinitence of Jung Stilling, she travelled through Baden and Switzerland, preaching the vanities of worldly living. Her somewhat crude mysticism impressed the Emperor Alexander, but was so distasteful to the ecclesiastical authorities that in 1818 she was obliged

to renounce her public ministry.
Krug, Wilhelm Traugott (1770-1842), a philosopher and writer, the originator of the system called transcendental synthesism, which endeavours to combine Idealism and Realism. He studied at Wittenberg, and was later appointed assistant professor of philosophy in consequence of his Letters on the Perfectional Personal Perso

Colony by the Dutch East India Com- and his Times, 1898; The Mcmoirs of pany; in the family on both sides | Paul Kruger, by himself, 1902, etc. pany; in the family on both sides Huguenot names are found. K. accompanied his parents in the great trek from Cape Colony to the country N. of the Orange River between 1835 and 1840. His education was primitive, and almost his only book was the Bible. The Dutch Reformed Church of the Transvaal was divided into three sects, and to the narrowest and most bigoted of these, the Dopper sect, the Kruger family belonged. All through his life he considered himself to be under special Divine guidance and protection, and to this he owed much of his influence over his fol-At the age of seventeen he lowers. was an assistant field cornet, at twenty a field cornet, and at twentyseven took command

against Sechele, the In 1852 the Transve independent by the Sand River Con-vention, and from that time was in a very unsettled condition; K. entered freely into all the disputes of the factions. In 1856-57 he joined Pretorius in an abortive attempt to compel a federation between the Transvaal and the Orange Free State. In 1864 Pretorius was made president of the Transvaal, and K. commander-general of the forces. In 1870 the public dissatisfaction over the Keate award in a boundary dispute, caused the downfall of Pretorius's government. K. acted with such bitterness and hostility to the new administration, under T. F. Burgers, that in 1877 the Transvaal was annexed by Great Britain. K. accepted office under the British government, but was dismissed in 1878. In 1880 the Boer rebellion occurred, and K., with missed in 1878. In 1880 the Boer rebellion occurred, and K., with General Joubert and Pretorius, negotiated the terms of peace. In 1883 he was elected president, and in the following year obtained the London Convention. In 1886 he secured reelection as president. During all his terms of power he was bitterly bestile terms of power he was bitterly hostile to Uitlanders, and by his short-sighted policy undoubtedly brought about the Boer War. In 1893 he was very unpopular, and there is no reasonable doubt that he falsified the election figures which caused him to be re-elected by a majority of 700 over General Joubert. In 1899, after a fruitless convention with Sir A. Milner, war was declared. K., after Milner, war was declared. K., after attempting in vain to influence the European powers on his behalf, fled to Europe and resided at Utrecht. He died at Clarens, on the shore of Lake

Krügersdorp, or Krügersdorp, a th. of the Transvaal prov., S. Africa, 22 m. W.N.W. of Johannesburg, between Johannesburg and the Blaauwbank goldfields. It was founded on the Witwatersrand (1887), and named after President Krüger. The Dutch used yearly to celebrate here their victory over the Zulu Dingaan (1838-40), and later their defeat of the British at Majuba Hill (1881). Doornkop, near by, Dr. Jameson sur-rendered to the Boers under Cronje (1896). There are limestone caves at

Krumau, or Krummau, a tn. of Bohemia, Austria, on an island in the include linen, cloth, paper, henp. There is graphite to the the control of
mining also. It has a fine old castle. Pop. 8716.

Krummacher, Friedrich Wilhelm (1796-1868), a German preacher and Wilhelm writer on religious subjects, born at Mors on the Rhine, was the son of Frederick Adolf K., the author of Die Parabeln, was preacher in the Reformed Church at Frankfurt, Ruhrort, Barmen, Elberfeld and Berlin, and in 1853 was made court chaplain at Potsdam. Among his works are: Salomo und Sulamith, trans. 1838; Elias der Tishbiter, trans. 1838; Elisha, 1835; Das Passionsbuch, 1870; David, 1867. He also wrote an autobiography, 1869 (trans. 1871).

Krupp, Alfred, founder of the celebrated iron and steel works at Essen in Prussia, born at that town, and succeeded his father in possession of a small iron forge in 1848. His first efforts were in the direction of producing axles and tyres for railways. K. adopted the steam-hammer and the Bessemer process of manufacturing steel immediately they were introduced (1857), and turned his attention to the production of larger armaments. He had already in 1847 produced his first cannon, a 3-pounder. cast-steel muzzle loader. Paying attention to the production of castattention to the production of cast-steel blocks of great weight he at length (1880) succeeded in forging a breech-loading gun of 100 tons, the largest of its kind at that date. He was also a pioneer in producing specially hardened armour for war-ships. Though at first ignored by the German government he at last received due appreciation, and was fre-Genera, whither he had gone for his quently visited by the late Emperor health, and was buried at Pretoria. See J. J. van Oordt's P. Kruger ende opkomst a Quia Afrikaansche Republick, 1898; F. R. Stathan's Paul Kruger works at Essen, Kiel Annen, and

now employ some 70,000 Gruson He was succeeded by his persons. only son, Friedrich Alfred K. (1854only son, retaries Affect K. (1997). 1902), by whom was constructed the immense 135-ton gun for the defence of Kronstadt, and who was in turn succeeded by his daughter, Frau Bertha, married to Baron Krupp von Babba mar Halbert Bohlen und Halbach.

Krusevac, or Krushevatz, a prov. and tn. of Servia, 37 m. from Kraguand th. of Servia, 37 m. from Kragu-jevac. The cap. of the Servian csars till 1389, it was held by the Turks from 1428-1833. Pop. about 8000. Krushevo, a tn. of European Turkey, in the vilayet of Monastir, 23 m. N.W. from the tn. of Monastir, Pop. 10,000.

Krypton, a gaseous chemical ele-ment found in the atmosphere. It forms one of the group known as 'companions of argon,' the other companions of argon, the other members being helium, reon, and xeon. It is estimated that the quantity of all the companions of argon existent in the atmosphere does not exceed 16d of the volume of argon. K. has a density of 40.88 and a boiling point of 121.33° absolute temperature.

Kshatriyas, see Caste.

Kuala Lumpur, the cap. of the British protectorate of Selangor, W. Malay Peninsula. Rubber is produced and tin is mined. Pop. 80,000.

Kuala Selangor, a scaport in. at the mouth of the Selangor (Straits of Malacca), on W. coast of S. protectorate, Malay Peninsula. It was once an important Dutch stronghold. Exports include timber, rubber, ivory, tin, rattans, and hides. Pop 35,000.

Kuango, see Congo.

Kunnza, see Coanza. Kuba, a tn. of Russian Transcau-casia, in the gov. of Baku. It is noted for the culture of silkworms, and the manuf. of silk goods and carpets. Pop. 16,000.

Kuban, the name of both a prov. and a river of Russia. The prov. includes the river basin, the northern slove of the Caucasus range as far to slope of the Caucasus range as far to the E. as Elbruz, and the coast of the sea of Azov. The crops grown in-clude wheat, tobacco, apples, pears, and vines. Horses are rearred by the nomadic inhabitants of the plains. The minerals include coal, iron ore, salt, soda, and petroleum. Area The 36,645 sq. m. Pop. 2,625,800. R. Kuban, the ancient Hypanis, or Varden, wice of a beingt of 14 000 ft. in N C., Its mai

Kuban Bay after a course of almost 500 m., whilst an arm enters the Sea of Azov. Sandbanks encumber navigation, which is carried on in flatbottomed boats.

Kubelik, Jan (b. 1880), a Bohemian violinist, made his debut at the age of eight in Prague. Later he studied under Seveik, and for the past fifteen years has played all over the world. meeting everywhere with phenomenal success. Technically perfect, his playing, however, is not always above criticism as regards interpretation; he is particularly renowned for his performance of Bach's Chaconne, and of Paganini.

Kublai Khan (1216-94), grandson of Jenghis Khan, was the founder of the Mongol dynasty of China. Whilst his brother Mangu was on the Whilst his orother Mangu was on the throne, Kublai Khan began the conquest of Northern China. On the death of Mangu in 1259 he became the 'Great Khan,' and in the course of time added Southern China to his empire, also Tartary, Tibet, Burma, and other countries. His empire was thus of great extent, but many of his feesion expeditions nortically be as foreign expeditions, particularly those loreign expeditions, particularly those against Japan, ended in failure. Kublai Khan was a wise and just ruler; he encouraged trade and agriculture, and established Buddhism as the state religion. He delighted in pomp and display, as we see in Marco Polo's Travels. The son whom he had chosen to succeed him predeceased him displaying in 1981, and his continuous and him and his son him, dying in 1284, and his son Teimur was his successor.

Kuch (Cooch) Behar, a feudatory state of N.E. Bengal, India, near Darjiling. Area 1307 sq. m. Pop. 570,000. The cap., Kuch Behar, is on the Tursa, and has about 12,000 inhabitants. The natives are called Footback there in the property of the cap. Koch or Rajbansi. Rice, tobacco, silk,

and jute are produced.

Kuchaman, a tn. of Rajputana, India, 65 m W.N.W. of Jaipur. Pop.

13,000.

Kuchan, or Kabushan, a tn. of Khorassan, Persia, counceted by road by with Meshed. It was destroyed by earthquakes in 1893 and 1895. Pop. 12,000.

Kuching, see Sarawar. Kücken, Friedrich Wilhelm (1810-Rucked, Friedrich Wilhelm (1810-82), a German musician, connected with the Stuttgart circles from 1851-61, and later with Schwerin; he is known chiefiy as a writer of songs of light character, half art-song, half drawing-room ballad.

Kuczurmare, a com. of Austria in the prov. of Bukowina, on a trib. of the R. Pruth. Pop. 9716.

Kuci-hua-cheng, or Kukukhoto, a tn. of China in the prov. of Shansi. 250 m. N.E. of Pcking. It consists of two parts, an important trading and commercial centre, and the military portion. There are Protestant and Catholic missions, and it was here that Licutenant Watts-Jones was Kubango, or Okavango, see CUBANGO. murdered in 1900. Pop. 200,000.

Kuenen, Abraham (1828-91), an first to recogni eminent Dutch biblical scholar, born Baron von R at Haarlem in Holland. He was eduat Haariem in Holland. He was educated at Leyden University, where, as a complex in 1853, he became professor of O.T. theology. He married the daughter of Muurling, one of the founders of the university from 1861-62. K. was undoubtedly one of the greatest of Russian, English, French, and Hun-O.T. critics, and it was owing in a garian explorers, amongst whom

1882 he delivered a course o' on natural and universal

and he also came to visit Colenso, who His

Cole

Critically Examined, 1865 feten en de Profetie onder Is Natural Religions and Un

ligions (Hibbert lecture), Kuen-lun or Kwen-lun a term used to designate the mountain ranges which

the northern edge of th.

108). The plateau. In its widest sense the modern town was add about Kuen-lun Mts. stretch in a waving 1805 and rebuilt in 1903. Pop. (estiline for nearly 2500 m. from E. to W. mated) 60,000.

In the western portion the ranges are Ku-klux-klan, the name of an 'squeezed' together more closely, having a breadth of 150 to 200 m. only, and the summits are correspondingly loitier. In the eastern portion the breadth increases to 600 m. and the ranges are consequently less folded and flatter. The Kuen-lun are the backbone of the tectonic structure of Asia. A peculiar feature of the Tibetan plateau is that the outermost borderrange is throughout double, as are the lake basins be-

i either the the highest

but mere are no o. peaks, as the general level is so high.

The importance of the Kuen lun Kula, a com. of Hungary, co. Baessystem was 'recognised from very Bodreg, 34 m. from Maria Theresically times, but K. Ritter was the pel. Pop. 9000.

defined them

Off. critics, and it was owing in a garian explorers, amongst whom large degree to his labours that the strength of Israel was placed on a generally divided into three main scientific tooting. His work entitled Godsdienst van Israel (1869-70), transfer of Street showed the fallacy of Israel showed the Israe

distinctions Kuhn, Franz Felix Adalbert (1812-d legal por 81), a German mythologist, born at and Penta-königsberg, Brandenburg; from 1841 teuch, as H. brat mad done in his teacher and from 1870 principal of Geschichtliche Bücher des A.

K. visited England several

ranks as one of the branch of knowledge. orbs are: Märkische

and Foreign | Geon | In 1883 K. | falen | In 1883 K. | falen | In 1883 K. | falen | Indo-germanischen | Foikul | Georgies of Orion | Indo-germanischen | Foikul | Georgies | Indo-germanischen | Foikul | Georgies | Indo-germanischen | Foikul | Indo-germanischen
15 15 of Bornu, in-

sh protectorso called or kuka, aty. It is e British but was te native holds his 108). The

Ku-klux-klan, the name of an

newly emancipated staves. And composer governments were unable to suppress the movement, but its lawless acts, culminating in the outrages of 1868.69, led to action by the U.S.

22,000 ft., innucuo ... outstanding some years later.

Kukukhoto, see Kuei-nea-cheng.

Kulasekarapatnam, atn. of Madras, extending N. of the Danube and N.W. India, in the dist. of Tinnevelli. Of the Black Sea, comprising the the population (20,000) about one present Moldavia, Wallachia, and half are Hindus, one quarter Chrispart of S. Russia, W. of the Daipper the population (20,000) about one half are Hindus, one quarter Chris-tians, and the rest Mohammedans.

Kulbarga, or Gulbarga, a tn. in India, Haidarabad, cap. of the dist.

It was was the S (1347ruins of

se kings. There is a great mosque modelled after that of Cordoba in Spain, Pop.

30,000. Kulja, or Ili, a walled tn. of Central Asia, in Chinese Zungaria, on the R. Ili. It is one of the chief cities of the region, and is the seat of the Russian consul. The two chief buildings are the Taranchi and Dungan mosques.

the Taranchi and Dungan mosques, Paper and vernicelli are manufactured, and wheat, barley, poppies, and heerne cultivated. Pop. 10,000. Kulm, a tr., on the R. Vistula, W. Prussia. It has ancient wells and large oil mills, saw mills, and machinery works. Its trade is important. Pop. 11,720. See KULMSEE. Kulmbach, a walled tr. of Ger-

Kulmbach, a walled tn. of Germany in the kingdom of Bavaria

from 1243 to 1824. Pop. 10,6:
Kulp, a tn. in the gov. of
Transcaucasia, Russia, and
to the S.W. of the town of

Enormous quantities of rock salt are found here. Pop. about 3000.

Kulu, a valley of British India, Punjab, Kangra dist., with rich, undeveloped deposits of silver, copper,

It also produces very fine fruits and vegetables.

Kum, a tn. of Persia, on the Anarbar R., cap. of the prov. of the same name. It is connected by road with name. It is connected by road with Tcheran, and is also noted as a place of pilgrimage, containing as it does the shrine of Fatima (d. 816), the sister of Riza, the eighth Imam. There is a manufacture of porous vases. Pop. 28,000.

Kuma, a riv. of N. Caucasia, Russia, which rises in the main Caucasia.

which rises in the main Caucasus ridge in the S.W. of Pyatigarsk. It has a length of about 350 m., and flows towards the Caspian, but it is often lost in the sands of the steppes.

Kumamoto, a garrison city of pan, Kiushiu, about 50 m. E. of Nagasaki. It is the centre of the Higo

rice trade. Pop. 70,000. Kumania, or Cumania: 1. A dist. of Europe at the time of the Crusades,

part of S. Russia, W. of the Emerger R. 2. Great Kumania, a dist. in Hun-gary, E. of the Theiss. Area 424 sq. m. Pop. 55,000. 3. Little Kumania, a dist. of Hungary, between the Theiss and the Danube. Area 1000 sq. m.

Pop. 64,000. Kumarila Bhatta, known also as Bhattacharya, a celebrated Brahmin teacher who lived about 600 A.D. He was an exponent of the Mimansa system of Hindu philosophy, and strenu-ously opposed the Buddhists, whom he is said to have extirpated. He annotated the Sutras, and was noted for his interpretation of the Vedic texts. He sacrificed himself voluntarily.

Kumassi, or Coomassie, the cap. of Ashanti, British W. Africa, a native city of some antiquity. It was destroyed by the British in 1874, and again captured by them in 1895-96, A railway from the coast was opened in 1903, after which its prosperity revived, and it is now the seat of the British resident. It is situated in a clearing of the dense Ashanti forest. Pop. 8853.

many in the kingdom of Bayaria clearing of the dense Asaani forest, and gov. of Upper Franconia, 11 m. from Beyreuth. It is famous for its breweries, malting, and bottling works, especially for its black beer, which is largely exported. Pop. 10,731. Kulmsee, a tn. in the prov. of W. Prussia, Prussia, 14 m. N. of Thorn. It was the see of the bishops of Kulm layas, including many of the principal Kumaun, or Kumaon, a div. of the United Provinces, India, with head-quarters at Naini Tal, and consisting of the three districts of Naini Tal,

" the foot of the extensive forest. · the dwellings of

or tea plantations. There are mines of iron, lead, and copper, but they are little worked. The country was seized by the Ghurkas at the end of the 18th century, but was annexed to British India after the Ghurka War of 1815.

Area 13,730 sq. m. Pop. 1.250,000.

Kumbum, or Gumbum, an important lamasery in the prov. of Kansu, China, 130 m. W.N.W. of Lan-chou. It is a Buddhist pilgrim resort.

Kumis, see Koumiss.

Kümmel, a liquer containing 33 per cent. of alcohol, which is exported chiefly from Riga. It consists of grain, alcohol, cumin, and bruised caraway seeds.

Kumta, a tn. in S. Kanara dist., Bombay, India, on the W. coast. It has a good trade, and is famous for its sandalwood carving. Pop. 11,102.

Kunar, a riv. of Afghanistan which rives its name to a very beautiful valley. It rises in the Hindu-Kush Mts., and is known by the various titles of Yarkhun, Chitral, Kashnar, and Kunar, Joins the Kabul a little helow Jalalabad. The ancient towns

of Kunar and Pashat lie upon its The surface is hilly, and large lakes banks.

Kunch, a tn. of British India in the Jalaun dist., 80 m. S.W. of Cawnpur. Pop. 13,000, of which about 10,000 are Hindus.

Kundt, August (1839-94), a German physicist, born at Schwerin, Mecklenburg: became privat docent at Berlin University (1866), professor or physics at the Zirrich Polytechnicum

and Strassburg of physics in the

He is best known by stitute (1888). his researches in sound, and has given his name to the method of determining the velocity of sound vibrations by dust figures. He also determined the ratio of the two specific heats of a gas, and did some valuable work in optics, dealing with the anomalous dispersion of light and the optical characteristics of metals.

Kunduz, a khanate and tn. of Afghan Turkestan, the former of which is bounded on the N. by the Oxus and on the S. by the Hindu-Kush. The town is the trade centre of a large district, but is very dirty

and unhealthy.

Kunene, see CUNENE

Kunersdorf, a vil. of Prussia in the prov. of Brandenburg, 6 m. from Frankfort-on-the-Oder. Here Frederick the Great, at the head of the Prussian army, was defeated by the combined armies of the Russians under Soltykov and the Austrians under Laudon in 1759. Pop. 5000.

Kungur, a tn. on Sylva R. in the gov. of Perm, Russia, on the Siberian highway. It has tanneries, leather and iron foundries, and factories, manufactures soap, shoes, and over-coats. Alabaster is quarried, and there are copper and iron mines. It has an important fair, and is famous

for its alabaster caverns. Pop. 15,000. Kun Long, a dist. in the Shan states, Burma, and also a ferry on the Salween. The Burmese formerly had a customs station here, until the depredations of the Wa, or hill-men, made the place dangerous for traders.

Kunsan, a tn. on the W. coast of Korea, on the Yellow Sea. It is one of the Treaty Ports, and its opening dates from 1899. Pop. 12,000.

Kun Szent Marton, a tn. with a magistracy in the prov. of Szolnok, Hungary, 29 m. from Kecskemet. Hungary, 2 Pop. 11,000.

Kunti, in Hindu mythology a heroine of the Mahabharata, daughter of the Yadava prince Shura. She was the mother of Karna by the sun, and afterwards became the chief wife of Pandu, and bore three sons.

cover about 17 per cent. of it. The soil is of moderate fertility, but very little of it is cultivated. There are engineering and chemical works, tanneries, and saw mills; carts and sledges are also made, and timber, iron, butter, furs, and game exported. Dairy farming and cattle breeding are extensively carried on, and a large quantity of iron is mined. Area 16,500 sq. m. Pop. 314,000. 2. Atn., and cap. of the above, on Lake Kalla-vesi, is a trading centre of considerable importance and how come siderable importance and has com-munication with Middle Finland and munication with Middle Finland and the sea (via Saima Canal). Pop. 15,500.

Kupferdreh, a com. of Rhenish Prussia on the Ruhr, 11 m. S.E. of Essen. Pop. 9553.

Kura, or Kur, a riv. of Trans-Caucasia, Russia, rises in Kysyrdagh ridge and flows to the Caster. It is

ridge and flows to the Caspian. It is 825 m. in length, has a basin of 60,000 sq. m., and is navigable for 450 m. from its mouth. The chief tributary is the Araz. There is considerable fishing in its lower course.

Kuram, a riv. of Afghanistan and British India, which rises in Afghanistan, flows E., collecting its headwaters from the Safid Koh, and traverses the Sulaiman Mts., from which it emerges by the Kuram Pass. After this it flows through the Bannu district and finally enters the Indus.

Kurdistan, a mountainous region of W. Asia, S. of Armenia, once part of ancient Assyria. It is mostly in Asiatic Turkey, partly in Persia. K. stretches S. from the R. Araxes to the plains of Mesopotamia and mountains of Luristan, and E. from the Upper Euphrates to the upper course of the Tigris and Urmiah in Persia. The chiof vilayets are Diarbekr, Bitlis, Mamuretül-Aziz. Van, while Ardelan and Azerbaijan provinces are in Persia. Bitlis, Ur(u)miah, Diarbekr. Bitlis, Ur(u)miah, and Kermanshah are the principal towns. Wool, butter, gum, raisins, hides, and sheep are produced. The Kurds, or Koords, are a wild, pastoral, partly nomadic people. Each different tribe has its own chief, nominally subject to the Porte and the Shah of Persia. The Yezidis of the Singar range show traces of Zoroastrian influence, while the rest are mostly Mohammedans of the Sunni sect. N. of Mosul there is a large Christian population, but the Kurds are very hostile to Christians, and their cruel massacres of the Armenians are well known. Area about the Yadava prince Shura. She 71,990 sq. m. Pop. about 2,500,000. Is the mother of Karna by the sun, d afterwards became the chief wife Round, and bore three sons.

Kuopio: 1. A prov. in the middle Finland, including N. Karelia. 79), and Houssaye (1888); Lynch, and Present, 1906.

Kurgan, a tn. on the Siberian Railway, gov. Zobolsk, in an agricultural district of Asiatic Russia. It has a flourishing trade in cattle and

food stuffs. Pop. 11,000. Kurgans are prehistoric burial mounds which are found in various parts of Russia and Siberia.

Kuria - Muria, a group of rocky islands in the Arabian Sea, which have been in British possession since 1854. They are five in number and have a total area of 28 sq. m. They are chiefly used as a cable station,

but guano is obtained.

Kuriles, or Kuril Islands, the Japanese Chishima (Thousand Isles), a group of some thirty islands in the N. Pacific, lying between Kamt-chatka and Yezo, owned by Japan. A continuation of the volcanic moun-A continuation of the Volcano mountains of E. Asia, they form a province of Hokknido. Chikuratski, Blakiston, Milne, and other peaks abound in forests. The inhabitants are Kamtchadales and Alnos, and The trade chiefly in furs and fish. chief islands are Iturup, Kunashiri, Paramushiri, Shamshu, Amakutan, Tomari is the port nearest Japan. Pop. about 4400. See Snow, Notes on

Kurla, a tn. of British India, Salsette Is, on the S. coast, 8 m. N.E. of Bombay, with which it is connected by the Sion Causeway. It has large cotton mills. Pop. 15,000.

Kurland, or Courland, a Baltic prov. of Russia with the Gulf of Riga on the N., and the Baltic on the W. The surface is generally low, and the coastlands are flat and marshy. The climate is temperate. There are many climate is temperate. There are many simple, the Dwina, the Aa, and the Windau. Agriculture is the chief occupation, the cap.) and the windau is the chief occupation, the cap.) and the windau is a winday in the cap.) and the winday is the winday in the winday is the winday in the winday in the winday in the winday is the winday in the w

ipal industries the making of

machinery and iron goods, glass, and

There are no ports in the Gult of Rigg, and only three good ones on the Baltic coast, Libau, Windau, and Polangen. Area 10,435 sq. m. Pop. 741,200.

Kuroki, Itei, Count (b. 1841), a Japanese general, born in Satsuma. He figured prominently in the later stages of the Chino-Japanese War (1894-95), and greatly distinguished Bechuanaland, S. Africa, on the himself. In the Russo-Japanese War Kuruman R., 120 m. N.W. of Kimber-(1901-5) he commanded one of the ley. Pop. 1681.

Armenia, 1901; Jackson, Persia Past | armies in Manchuria, won the battle that isolated Port Arthur, and was present at Liao-Yang, Chaho, and Mukden. He was created count for his services in this war, having pre-viously been made baron for his services in the war with China.

Kuropatkin, Alexei Nikolajevitch (b. 1848), a Russian general, entered the army in 1864, and distinguished himself in the Kashgar campaign. In the Russo-Turkish War of 1877-78 he was chief-of-staff to the younger Skobeleff, and laid the foundation of his great reputation as a soldier. After the death of Skobeleff in 1882 he re-organised the Russian army. He was Commander-in-Chief in Caucasia in 1897, and Minister of War in 1898. On the outbreak of the Russo-Japanese War (1904-5) he was appointed to the chief command in Manchuria, but met with a series of reverses culminating in the disastrous battle of Mukden. His failure may have been partly due to not having an entirely free hand. After Mukden, he resigned in favour of General Linievitch. He wrote a history of the war, in which he candidly admitted his own mistakes. He had previously published works on the Balkan and Central Asian wars.

Kurrachee, see Karaciii.

Kursaal, see Casino. Kursk: 1. Gov. of S. Central Russia (Europe), adjoining Little Russia in the basins of the Dnieper and the Don. There are hills of limestone and sandstone in the E., but the rest is chiefly flat plains of fertile arable land (black earth), watered by numerous small streams. Hides, bristles, grain, and hempare produced, also some beetroot and tobacco. There are fine nursery-gardens and orchards, and the honey and cattle of K. are noted. The region first came part of Ukraine from t the present government being formed the present government being formed in 1797. The inhabitants are chiefly Russians, belonging to the Orthodox Church. Area about 17,937 sq. m. Pop. about 3,016,700. 2. The cap. of above, on R. Kur and the Moscow-Sebastopol Railway. There are manufactor candles, soap, spirits, tobacco; flour-mills, tanneries, and distilleries. The Korennava Fairis held here about The Korennaya Fair is held here about Easter. There are two monasteries, a cathedral, and an observatory. was pillaged by Tartars (1210), and suffered from riots subsequent to the Russo-Japanese War (1905). Pop.

81,527. Kuruman, a missionary station in

50 m. N.E. of Nagasaki, Pop. 36,000. Kurunegala, the chief tn. in the W.

prov. of Ceylon, was the seat of a royal residence in the 14th century; it is 59 m. from Colombo, and has crops of rice, tobacco, tea, coffee, cocoa, etc. Pop. 6483.

Kus, a tn. on the site of the ancient Apollinopolis Parva in the prov. of Keneh, Upper Egypt. Pop. 10,500.

Kushiro, a tn. on the S.E. coast of Yezo, Japan, cap. of Kushiro prov. It is the nearest port to the sulphur mines of Yezo, and is open to foreign trade. Pop. 16,000.

Kushk, a military port and fortress on the border of Russian Turkestan. It is on a Russian branch railway

from Merv.

Kusi, Kosi, or Koosee, a river of India, which rises in the Himalayas of Nepal, flows S., and finally enters the Ganges. It has a length of 325 m.

Kuskoquim, or Kuskokwim, a river of Alaska which flows into Kusko-quim Bay. It is over 500 m. long, and is

navigable for three-fifths of its course.
Küssnach, a com. of Switzerland,
7 m. E.N.E. of Lucerne, at the N. end of Lake Lucerne. Here it was that William Tell escaped from Gessler. Pop. 3600.

Rustanaisk, a tn. on the Tobol R. in the prov. of Turgai, Asiatic Russia. There are tanneries and potteries, and tallow is manufactured. It con-

tains a cathedral. Pop. 15,000. Küstendil, see Kostendil.

Küstenji, sce Constanta. Küstenland (coast-land), a prov. of Austria-Hungary at the head of the Adriatic, which embraces Trieste, Görz, and Gradiska. town, Trieste. Pop. 894,457. Istria. Chief

Küstrin, a fortified tn. of Prussia, on the Oder, in the prov. of Branden-burg, 52 m. E. of Berlin. Its fortress dates from the 16th century, and was captured by the French in 1806, who held it until 1814. There are manufs. of machinery and cigars. Pop. 17,596.

Kutaiah, Kutaya, or Kuitahia, the ancient Cotiæum, a tn. of Asiatic Turkey, in the prov. of Brusa. There are several Christian churches, and a The pop., large ancient fortress. The pop., about 30,000, are chiefly Moham-

medans.

Kutais: 1. A prov. of Trans-caucasia, Russia, E. of the Black Sea. It has a very varied surface consisting of lowlands along the shore of the Black Sea, and mountains in the N. and S. It has a moist, warm climate, and the land is well cultivated. Indian corn and wheat are the chief crops, but vineyards cover a large area, and there are also cotton plantations. The bee and silkworm are cultivated, and the province contains some extensive Pop. 190,000.

Kurume, a tn. of Kiushiu, Japan, | forests, and exports timber. The chief mineral is manganese-ore, which is largely exported, but copper, silver, coal, zinc, and naphtha are also found. Area \$166 sq. m. Pop. 990,800. 2. A tn., cap. of the gov. Kutais, on the R. Rion. It is a very old town, and is said to have existed in 1200 B.C. It contains the ruins of an 11thcentury cathedral, and has a good botanical garden. Pop. 50,396.

Kutch, see Cutch.

Kutno, a Russian Polan It has breweric 11,000.

Kuttenberg, a mining tn. in Bohemia, Austria, 40 m. E.S.E. of Prague. There are manufs. of tobacco, sugar, and cotton, and the town contains a 13th - century royal castle. Pop. 15,671.

Kuty, a tn. of Galicia, Austria, 35 m. W. of Czernowitz. It has morocco leather factories and exports pitch.

Pop. 11,715.

Kuwana, a tn. of Hondo, Japan, 55 m. E. of Kyoto. Pop. 21,000.

Kuyper (or Kuijper), Abraham (b. 1837), a Dutch theologian and politician, studied at Leyden. He became successively pastor of the Reformed Churches at Beest, Utrecht, and Amsterdam (1863-70). As editor of De Standaard (1872) and the Heraut (1878) he violently opposed 'modernism' and defended Calvinism. was elected to parliament (1874-77), and set forth his political aims in Ons Program (1879). K. founded the Free University of Amsterdam (1880) and Reformed Free Churches (1886). After bringing about the alliance between orthodox Protestants and the Roman Catholic party, he became Prime Minister (1901-5). His works include the editing of the *Encyclo*pædia Sacræ Theologiæ, 1898-1901; and of Joannes à Lasco opera, 1866; Calvinism; The Incarnation; Social-ism and Christianity; The S. African Crisis.

Kuznetsk: 1. A tn. in Saratov gov., European Russia. It has hard-ware manufactures, and there are also tanneries and boot and glove factories. Harness and carriage-wheels are also made. Pop. 25,400. 2. A tn. in the Altai region, Tomsk gov., W. Siberia, Asiatic Russia, in a mining district, 200 m. S.E. of the town of Tomsk. Pop. 9000.

Kwala Lumpur, see Kuala Lumpur. Kwang-chau-fu, the Chinese name for Canton, the port and cap. Sec CANTON.

Kwang-chau-wan, a bay of great importance, coaling station and port on the Lei-chau Peninsula, S. China. It was leased to France in 1898-99.

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power, and con-

succeeded in putting him on the In 1898, although she had throne. retired from power, she compelled him to issue an edict again making her regent, and this influence she exercised until the end of his reign.

Kwang-si, an inland prov. China, by Kweichou, and on the S. by Kwangtung. It is almost entirely in the basin of the Si-kiang, the main stream of which traverses the centre of the prowince from W. to E. The surface is mountainous, and valuable timber is obtained, and cinnamon of excellent quality. Silver is the only mineral worked with advantage, but gold, copper, lead, tin, and coal are all found, the latter especially in the country round Po-se. The chief articles of commerce are timber. indigo, sugar, and tea. sq. m. Pop. 5,142,330. Arca 78,250

Kwang-tung, a maritime prov. of S.E. China, bounded S. and E. by China Sea. It includes Hainan Is. The chief river, Chu-kiang, or Pearl R., is formed of three branches, Sikiang (the largest), Pekiang, and Tungkiang. There are great facilities

coasting ports are Pakhoi,

grains. cury, cc

cassia. embroidery, and lacquered wares manufactured. There are fishing and salt industries. The lease of part of this province (S. Liaotung Peninsula), expiring 1923, was transferred by treaty (1905), with China's consent, from Russia to Japan. Area about 99,970 sq. m. Pop. 31,865,251.

Kwang-yen, the cap. of a prov. of the same name, French Indo-China, on the Song-kei delta, 60 m. E. of Hanoi. It is accessible at all times to

very large vessels. Pop. 40,000. Kwanza, sec Coanza.

Kweichau, or Kwei-chow, an interior prov. of China, bounded on the S. by Kwang-si and on the N. by Szechuen. The surface is on the whole Yangtse-kiang, with its tributary the Wu. The climate is unhealthy, stagnant waters and marshes being the cause of frequent outbreaks of fever. Wheat and maize are the principal crops, with tea, opium, and tobacco, but the agricultural products of the province are limited, its chief wealth Doon. It was in this lying in its minerals. Iron is extracted in the valley of the Wu, which is also Kyles of Bute, a so

Kwang-hsu (1875-1908). Emperor rich in coal, and copper is obtained in of China, born in 1871. Although he cr, the Empress a considerable amount of mercury, a considerable amount of mercury, which was formerly a principal article of commerce, and gold, silver, tin, and lead exist. The province is also noted for its horses. Area 67,160 sq. m. Pop. 7,650,282.

Kwei-yang-fu, a tn. of China, cap. of the prov. Kweichau, lies near a coal district, and from its position is of great importance commercially.

Kwen-lun, see KUEN-LUN.

Kyaukpyu, a scaport of Arakan, is at the N. end of Ramri Is. It is the chief town of the district of the same name. The harbour extends for many miles, but is rendered dangerous by numerous sunken rocks. Pop. 3145.

Kyaukse, the northernmost district of the Meiktila div., Upper Burma, is irrigated by numerous rivers and canals, and the chief product is rice. Kyaukse town, the headquarters of the district, is on the right bank of the Pop. of dist. 141,250; of Zawgyi R.

town 5420.

Kyd (or Kid), Thomas (1558-94), an English Elizabethan dramatist, one of the most important before Shakespeare. Hawkins roused interest in his name (c. 1773) in connection with The Spanish Tragedy (1584 - 89, printed 1594), dealing with the story of Hieronimo. This play and others of his enjoyed popularity on into Stuart times. The Ur Hamlet (original Fruits, draft of the tragedy of the Prince of draft of the tragedy of the Prince of Denmark) was probably a lost play by K. (1587). See Boas, Collected Works and Life, 1901; Mauly's ed. in Specimens of Pre-Shakespearian Drama, ii., 1897; Sarrazin and Koeppel in Englische Studien (xv. pt. ii., xvi. pt. iii.); Sarrazin in Anglia, Kyd und sein Kreis, 1892; Greene's Menaphon (Nashe's pref.); Ward, History of English Dramatic Literature, ii., 1881. Literature, ii., 1881.

Kyffhäuser, the name of a double line of hills in Thuringia, to the S. of the eastern extremity of the Golden Aue, between Kellra and Frankenhausen. The northern portion lies in the valley of the Golden Aue. The southern crest is surmounted by the ruins of a castle, where Frederick Barbarossa was supposed to be asleen ready to reappear when the old Germountainous, and the chief river is the | man empire was restored to its ancient glory. Here also was a residence of the Hohenstaufen imperial family, which was destroyed in the 16th century. An equestrian statue to the Emperor William I. was creeted in 1896.

Kyle, the middle dist. of Ayrshire, between the R. Irvine and the R. Doon. It was in this district that

Kyles of Bute, a sound between

noted for its beautiful scenery.

Kynaston (or Kinaston), Sir Francis (1587-1642), founder of a poet and scholar, 'Museum Minervæ,' founder Covent Garden. He found favour with Charles I., who knighted him and granted him in 1635 a house which was to be called 'Museum Minervæ,' to serve for the promotion of the arts (see Constitutions of the of the arts (see Constitutions of the Museum Minervæ, 1635). Corona Minervæ, a masque written by K. himself, was acted here. K. cannot be said to have succeeded as a poet. He wrote a Latin version of Chaucer's Troilus and Cressida, though only books i. and ii. were published. Some of his other works are: Musæ Querelæ de Regis in Scotiam Profectione, 1633; Musæ Aulicæ Arthuri Johnstoni, interprete F. K., 1635; Leoline and Sydanis. 1633;

Kyneton, a tn. in co. Dalhousie, Victoria, Australia. It manufs. car-riages and agricultural implements, and has a school of mines. Pop.

3400.

Kyôsai, Sho-fu (1831-89), a Japanese artist, soon discovered that the great revolution of 1867 gave him admirable opportunities for developing his very marked bent for political caricature. His spirited drawings, 55 m. N.N.W. of Chelyabinsk. It is enriched by a wealth of happy and the centre of a great mining district, original fancies, endeared him to the people, but on more than one occa-

Argyllshire coast and the N. of Bute, |sion led to his imprisonment by the party whose susceptibilities he had offended. K. has illustrated many offended. books, including Yehon Taka-kagami, 1870, and Kyôsai Gwaden, 1887.

Kyoto, see Kioro. Kyrie Elëison, the form in which the Greek words κύριε έλέησοι usually occur in the Latin service-books of the West. Their occurrence is frequent in the Latin books, but much more frequent in the Eastern Church services. The translation, 'Lord have mercy upon us,' occurs in the English Prayer Book at Matins and Evensong. It also occurs in an expanded form after each of the commandments at the beginning

of the Communion service. Kyrle, John (1637-1724), eulogised as 'the Man of Ross' by Pope in his third Moral Epistle; received this cognomen from the town in Herefordshire in which he passed most of his days. Here he devoted himself to the improvement of the town and its social conditions. He also attempted to bring about a moral improvement by diffusing a spirit of charity everywhere. The Kyrle Society was formed in memory of his work in 1877.

bet, often called a 'liquid,' is produced by a lateral emission of the breath, while the tip of the tongue is brought into contact with the front of the palate. Semitic lamed was of the palate. Semitic lamed was written V, which developed in Latin to its present form L, while Greek lambda was inverted thus \(^h\), developing to \(^h\). O.E. initial \(^h\), \(^h\), \(^h\) is represented in N.E. \(^h\), \(^h\), \(^h\), \(^h\). O.E. \(^h\) healdor, \(^h\). Laughter, \(^h\), \(^h\), \(^h\). The medially before a conspant medially before a consonant, pronounced in O.E., has frequently become silent, after having modified the preceding vowel, and in some cases has been dropped, c.g. O.E. wolde, swite, healf; N.E. would, such, half. In Scotland the l is sometimes retained, though lost in N.E., c.g. O.E. æle, N.E. each, Scotlish ilka. In Scotland ten final lis effonders and Scotland, too, final l is often dropped, as in a', awfu', for all, awful.

L, as a symbol, often written £, denotes pound, from Latin librum in Roman figures it equals fifty, and in chemistry it equals lithium.

Laager (Dutch leger, Ger. lager), a temporary camp in S. African campaigning, formed by a ring of oxwagons set close together. First adopted by the Dutch pioneers in trekking.

Lanland, or Lolland (low land), a Danish island to the S. of Sjaelland at the southern entrance to the Great the southern entrance to the Great Belt, with an area of about 450 sq. m. It is difficult of access by reason of the surrounding shallows. The sur-face is very flat and the soil fertile. Capital Maribo. Produces corn, hops, apples, timber, hemp, etc. Pop.74,161. Laar (or Laer), Pister van, sec BAMBOCCIO, PETER DE LAERNE. Labadia, Jeande (1610-74), a French

Labadie, Jean de (1610-74), a French mystic and Protestant reformer, born at Bourg-en-Guienne. He was originally a Jesuit, but joined the Reformed Church in 1650. He became paster at Middlebourg in 1666, but was soon compelled to resign on account of the singularity of his views. His doctrine received the name of known as the Labadists, which disis works are: pril, and Lc

La Barca, a tn. in the state of Jalisco, Mexico, 90 m. S.E. of Guadalajara. Pop. 10,000. Labarum, the name applied to the

L, the twelfth letter of the alpha- Christian Roman emperors. Cont. often called a 'liquid,' is pro- stantine the Great was the first to use it to commemorate his miraculous vision in 312. It had the form of a long gilded spear or staff, with a bar crossed at the top, with a square purple cloth, richly jewelled, depend-ing from it. On the point of the spear was the sacred monogram formed of the first two letters of the name of Christ, encircled by a golden wreath. The cross was substituted for the Roman eagle.

Labdacus, in Greek mythology, the legendary king of Thebes, son of Polydorus and father of Laius. He founded the dynasty of the Labdacides, and was the grandfather of

Edipus.
Labé, Louise (1526-66), a celebrated
Labé, Louise surnamed la Belle French poetess, surnamed in Belle Cordière, born at Lyons. From an early age she had a love of adventure, and is said to have followed the French army in Roussillon, being known as Captain Loys. On her return from soldiering, she married a wealthy ropemaker, and gathered around her all the distinguished and literary society of Lyons. She has written some of the finest love poems in the French language, and is the in the French language, and is the most famous French female poet of the 16th century. Her poetical works were published in 1555, and she also wrote a prose work entitled Débat de la folle et de l'amour. See Charles Boy, Recherches sur la vie et les œuvres de Louise Labé.

Label, or Lambal (Experiment)

Label, or Lambel (Fr. lambeau), a mark of cadency in heraldry, indicating the eldest son of a family. It is a fillet from which hang three pendants, formerly placed at the top of the sheld, but now borne rather lower. The sons and daughters of the royal house of England bear their arms differenced by a Loft bear their arms differenced by a L. of three points argent. The L. of the cldest son, the Prince of Wales, is plain, that of the younger princes, variously charged. In Scotland differencing is more varied, and the modern marks of cadency are less in use.

Labeo, Marcus Antistius (c. 50 B.C.-18 A.D.), a famous Roman jurist, whose father figured amongst Julius Casar's conspirators, and after the battle of Philippi, committed suicide. Entered public life at an early age as a member of the plebeian nobility, and before long rose to the pretor-Labarum, the name applied to the ship. He was an ardent republican sacred military standard of the early and for that reason falled to find promote him to the consulate in the year he should have held office. devoted nearly all his time to the study of jurisprudence and is said to have written over 400 books. most important literary work was the Libri Posteriorum. See Van Eck, De vila, moribus, et studiis M. Ant.

Labconis. Laberius, Decimus (c. 105-43 B.C.), a Roman knight, famed for his mimes or burlesque dramas; the chief of those who introduced the mimus into Latin literature, and a man of learning and culture. At the command of Julius Cæsar, he appeared, in 45, in one of his own mimes in a public contest with the actor, Publius Syrus, and was courageous enough to point his satire against Cæsar, who awarded the victory to Pubilius. Only fragments of his writings remain. See O. Ribbeck's Comicorum Latinorum reliquiæ, 1873.

Latinorum retiquiae, 1873.
Labiana, a tn. in prov. of Oviedo,
Spain, 16 m. S.E. of the town of
Oviedo; has coal-mines and iron,
copper, and other metallic ore deposits. Pop. 8000.
Labiate, the name given to an
important order of dicotyledonous
plants consisting of shout 3000

plants, consisting of about 3000 species which thrive in all parts of the world. The species are herbaceous or shrubby, the majority are land-plants, but a few are found in marshes; they are characterised by their square stems and opposite decussate leaves as well as by the flower. The inflorescence is a verticillaster of bilabiate ringent flowers; the sepals and petals are each five in number and united, there are four didynamous and epipetalous stamens, the superior ovary consists of two united carpels and is quadrilocular; the fruit is a carcerules. Some of the chief genera are Lamium, e.g. deadnettle, Salvia, e.g. sage, Mentha,

e.g. thyme.

Labiche, Eugène Marin (1815-87)

Labiche, Eugène Marin died a French dramatist, born and died. Paris. In 1838 he published a no entitled La Clef des Champs, and in the same year he made a double venture on the stage with a drama, L'Avocat Loubet, and a vaudeville, Monsieur de Coislin ou l'homme infiniment poli, both of which found popular favour. Chapeau de paille d'Italie, a fine specimen of French imbroglio, followed by Embrassons-nous, Folleville: Un Garçon de chez Very; Le Voyage de M. Perrichon; La Cigale chez les Fourmis, and several others. See preface to the Theatre Complet by Emile Augier.

favour with Augustus, who did not | Under the consulate of Cicero he distinguished himself as Cæsar's legate in the Gallic War, twice defeating the Treviri (B.C. 54) and taking part in the campaign against Vercingetorix. At the outbreak of the Civil War he sided with Pompey (49 B.c.) and displayed great cruelty in his treatment of Cæsar's soldiers. He went to Africa after the defeat of Pharsalia and finally fought against Cæsar at Munda in Spain, where his troops were routed and he was killed.

Lablache, Luigi (1794-1858), Franco-Italian operatic singer, born at Naples, where he studied at the Conservatorium under Gentili and Valesi. At the age of twenty he had developed a magnificent bass voice, and made his first appearance at Naples in Fioravanti's opera, Molinara. He then visited Milan, Mounara. He then visited Milan, Turin, Venice, and Vienna. In 1830 he appeared in London and Paris, meeting with great success and being engaged to appear annually in both these cities. He taught Queen Victoria singing for a time. On the operatic stage he was equally successful in tragic and come parts operatic stage he was equally suc-cessful in tragic and comic parts, among his principal rôles being Leporello in Don Giovanni, Caliban in The Tempest, though Don Bartolo in Il Barbiere is considered his best creation.

Laborde, Jean Benjamin de (1734-94), a French composer of music, born at Paris. He studied the violin under D'Auvergne, and was a pupil of Rameau for composition. chief work is Choix de Chansons miscs en Musique, in 4 vols. and charmingly illustrated. He also wrote Essai sur la Musique ancienne et moderne (1780), and several other works on music, besides songs and some unimportant

operas. L. was a victim to the guillotine, July 22, 1794. Labori, Fernand Gustave Gaston (b. 1860), a French advocate born at Rheims, where he was educated, and

two years in Ger-He was called to

l won celebrity in many famous cases, notably in his defence of Zola, accused of libelling the French executive and army; in the Dreyfus appeal; and the Hum-bert case (1903). He has published The Repertoire Encyclopédique du Droit Français, and is editor-in-chief of the Grande Revue.

Labouchere, Henry, Baron Taunton (1798-1869), an English politician, born at Hylands, Essex, died in Lon-don. Descended from a French family which emigrated to Holland after the revocation of the Edict of Nantes, and then settled in England. In 1826 Labienus, Titus Atius, a Roman L. entered the House of Commons on tribune of the plebs, 63 B.c. the Whig side, and was successively

Lord of the Admiralty, Under-Secret the Socialist tary of War, President of the Board of ordinarily use Trade, Chief Secretary for Ireland, and Colonial Secretary. Created a

baron in 1859.

Labouchere, Henry Dupré (1831-1912), an English journalist and poli-tician, son of Henry L., Baron Taunton. Educated at Eton and entered diplomatic service in 1854, being attached to the embassies of St. Petersburg and Dresden. In 1864 he entered parliament on the Liberal side, being one of Gladstone's most faithful supporters, and from 1867-68 represented Middlesex; was a member for Northampton from 1880-1905, when he retired. He was editor and proprietor of Truth, founded in 1876, a society paper, successful in the ex-posure of scandals of a various nature. Also part proprietor of the Daily News, and contributed a series of letters to this paper, during the siege of Paris in the Franco-German War, as 'A Besieged Resident.' In 1896 was a member of the Jameson Raid Commission. See Life by Jerningham, 1913.

Laboulaye, Edouard René Lefebvre de (1811-83), a French author, jurist, and politician, born at Paris. He entered the bar in 1842; in the following year was elected a member of the Academy, and in 1849 became professor of jurisprudence at the College of France. In 1855 he edited the Revue historique de Droit, continuing to do so till 1869. From 1870-76 he was editor of the Revue de Ligislation, and from 1877-83 of the Nouvelle Revue Historique. He also published Contes bleus, Contes amu-sants, fins et spirituels, L'Evangile de la Bonté, Souvenirs d'un Voyageur,

and numerous works on French law.

Labour. In the language of political economy L. is one of the two requisites of production, the other being, in Hill's words, 'appropriate natural objects.' In short, L. is the motive power of man upon the objects of the physical world, for, as Mill points out, all the L. of the world could not produce peculiar manner the particles of wool.

L. is said to be either productive or
unproductive. By the latter is meant
that L. which does not augment the material wealth of the community. The former is further subdivided into seem to a

schools of ordinarily use the term ' worker ' as a synonym for 'manual worker,' has not only resulted in bringing into sharp political juxtaposition those who work with their hands and those who do not, but has fostered a very general sympathy with the former on the ground that though they are the actual physical

they enjoy the profits accruir

economist regards unproductive L. as L. that not only does not render the community richer in material products but poorer by all that is consumed by the labourers while so employed; but, as Mill points out, unproductive L. may well be as useful as productive, or more so, oven in point of permanent advantage, for not all utility can be measured by material embodiment, e.g. the selfsacrifice of polar explorers like Capt. Scott and his band, or the brilliant rendering of a beautiful song, are acts which will do no more than leave a sensation or impression; but the spiritual value of such impression may well be far more to some in-dividuals than half the material riches of the world. Economically the most striking feature of L. is the fact that as society progresses it becomes increasingly divided, a fact which really renders the actual operation of a worker on a single process a less valuable factor in the final result (see also Division of Labour). Co-opera-tion of L. is in the view of many economists a still more effective agent in increasing the efficiency of L. than that of the division of L. are two kinds of co-operations of L.: (a) Simple co-operation, or that which takes place when several persons assist each other in the same employment. and (b) complex co-operation, when they assist each other in different employments, e.g. one set of persons may sow cotton-seed, another set pack it, and other sets manufacture it into cloth. But it is obvious that from one point of view the distinction one particle of matter, e.g. to weave between complex co-operation and broadcloth is but to rearrange in a division of L. may be merely verbal. ciorms. The Com-

of en-The former is further subdivided into directly and indirectly productive L., couraging the establishment in Linding the former category comprising all that manual work which is especially admission or compulsory detention of agrants or persons of a similar employed on material processes, the latter 'nervous' or mental work. In character. The more important latter 'nervous' or mental work. In existing L. C. on the Continent are common parlance the term appears to those in Holland, Belgium, Germany, and Switzerland. In 1818 General wan den Bosch established in Holland

oes not

under royal patronage a charitable organisation, 'the Society of Beneficence' for the purpose of employing is considerable. The colonists earn the poor on the land. Colonies were sums varying from one penny to acquired by the society in Holland, and established others at Wortel and Work done, one half being retained by the Merxplas in Belgium. The Dutch the management till discharge and L. C. are divided into (a) free colonies the other given monthly to spend at for indigent persons and (b) begar the earters. for indigent persons, and (b) beggar colonies for the repression of men-dicity. Men with their families were settled in the free colonies as small farmers or labourers with the view to fitting them to earn an independent livelihood. The scheme was not successful as the original entrants recessin as the original entrants remained in the colony and few fresh cases were received. In 1906 there were three free L. C., viz. Frederiksoord, willemsoord, and Wilhelminasoord, all maintained by subscriptions. The total population in all three was 2179 in 1827, 2007 in 1873, 1796 in 1887, and 1460 in 1902. The begger colonies were intended for beggar colonies were intended for the compulsory detention of vagrants. The chief of these colonies were at Ommerschans, Veenhuizen, and Merxplas. The colonies were penal rather than reformatory, and a severe discipline was maintained by the society. The burden of maintain-ing these colonies became too heavy for the society, and ultimately, in 1859, the state had to take the colonies over itself. The beggar colonies are now concentrated at Veenhuizen and cover 3000 acres, at which are detained some 3000 to 4000 vagrants. There is a separate institution of a similar kind for women at Hoorn.

In Belgium, under the law of Nov. 27, 1891, state institutions of two kinds were established: (1) Depots de Mendicité, and (2) Maisons de Refuge. The former are intended for the reception of able-bodied profes-sional beggars, vagrants, and certain other classes of people, such as inebriates and persons convicted of immoral offences. The chief depot is at Merxplas. Persons are admitted to these depôts by a juge de paix on summary conviction for a period of not less than two or more than seven years. The intention of the Act is to treat habitual vagrants and beggars not as criminals requiring punishment, but, pathologically, as persons requiring treatment on account of their mode of life. The work of the ment, but, pathologically, as persons cially in winter, and have carned for requiring treatment on account of themselves the name of 'colony their mode of life. The work of the loafers.' There being no reformatory Merxplas colony consists of land re-element in these institutions, it is not

the canteen. Seven years is the maximum term of detention in a depôt. but the average time is sixteen months. In Merxplas, however, most of the inmates are permanent residents, the great majority of them being there owing to drink. The purpose of a Maison de Refuge is to receive men too old or infirm to work, or who through want of work or misfortune, have been driven to begging or vag-rancy. It is in most respects similar to the English workhouse. There is power to detain persons for a period not exceeding one year, but destitute persons, furnished with an order from their commune, may enter volun-tarily. The chief Maison de Refuge is at Hoogstraeten, the Wortel section of that institution being reserved for able-bodied colonists. There is also a depôt and refuge for women at Bruges on similar lines. All the L. C. of Belgium are subject to state inspection

and control. In Germany in 1906 there were some thirty-four L. C. under the manage-ment of the Labour Colony Central Board, with accommodation for Board, with accommodation for about 4000 persons. The system is less developed than in Belgium or Holland, and effects less practical good, because there is no compulsion to remain in the colony, and admission is voluntary. The average time of remaining seems to be about three on remaining seems to be about three months. The colonies are supported out of grants by the provincial and municipal authorities and voluntary subscriptions. Most of the colonies are agricultural, but there are some industrial colonies such as those at Berlin and Magdeburg. As a result of German protective ideas, the inmates are allowed to work only at such industries as will not compete with independent manufacturers. The bulk of the inmates appear to be unem-ployed workmen and tramps, who come in and out of the colonies, espe-

> ising that no substantial im-ment results from the time Habitual vagrants in them.

nselves are far more effectively t with in the Arbeitshnüser (liter-

the evidence before the committee and persons who neglect to maintain a selves are far more effectively twith in the Arbeitsbasican ditar

any work in which he may have been not to the English workhouse, but to previously experienced. There is no the forced labour farms of Switzer-

land, and the compulsory L. C. of to the continental forced L. C. were Belgium and Holland. They are the old houses of correction, but at penal in character and intended for the present time the convict establishment determinents alone resemble such colonies, prisonment for certain specified in the fact that a great deal of conoffences, such as wandering about as a vagabond, begging, and applicants for relief through gambling, drunkenness, or idleness. The average term of detention is one year. The punishment consists of confinement to cells, reduction of diet (generally vegetarian), and sleeping on the floor. In 1906 there were twenty-four such Arbeitshaftser with accommodation for 14,836 persons. They are under and the inand the inat domestic

ork. Skilled teachers are employed to supervise the work done.

In Switzerland in 1906 there were both voluntary and compulsory L. C. The voluntary numbered only three and were managed by philanthropic societies. Persons admitted to volun-tary L. C. must agree to stay for one or two months. Nearly every canton has a compulsory colony or forced labour farm, managed by a cantonal council, the Federal government neither taking any share in the management nor inspecting the farms. Persons found begging are taken before a magistrate or district council. The former can sentence him, if an habitual offender, to imprisonment up to six months, or to detention in a colony for a period from six months colony for a period from six months up to two years. If a man be taken before a council and the latter find him 'work shy,' they can send him to a colony for a period of from three months to two years. The forced L. C. are all small, the largest, that in Witzwyl, containing only some 200 lamates. No money is received by the immates, and there is but little reinmates, and there is but little re-strictive discipline, owing, it appears, to the strict passport system of Switzerland, which makes escape uscless. The work done is chiefly land reclamation and farm work; tailoring, shoemaking, smith's work, ear-pentering, and basket-making are pentering, and basket-making are also carried on by inmates with a knowledge of such trades, there being, anowing of such trades, there being, as at Merxplas, no apprenticeship system. According to Mr. Preston-Thomas (Methods of dealing with Vagrancy in Swilzerland), vagrancy and begging have diminished in Switzerland, owing partly to police regulations, but partly to the forced L. C., which seem to exercise a greater rewhich seem to exercise a greater re-formatory influence than those of other countries, probably because they are small. Few inmates come there repeatedly, but the extent of reformation is purely conjectural. In England the closest approach

in the fact that a great deal of con-vict-labour is carried on. There are. however, certain institutions established by charitable agencies for vagrants. The largest of these latter institutions is the farm colony of the Salvation Army at Hadleigh in Essex, with accommodation (in 1906) for about 400 inmates. Some sixty or seventy inmates are accommodated at Lingfield in Surrey, a training colony established by the Christian Social Service Union, which union also has a smaller colony at Starn-thwaite in Westmorland. An experiment has also been made at Hollesley Bay in Suffolk. This colony was established by the Central London Unemployed Committee in 1901-5 for the reception of selected cases of unemployed workmen willing to undertake agricultural work. English colonies differ from the continental in that there is no power of compulsory detention, and also in the fact that they are not primarily intended for the varrant class. Had-leigh comprises 2000 acres of land and 1000 acres of foreshore, with about 250 colonists; the work done is mainly agriculture and brick-making. The system at this colony, according to the Departmental Committee, gives encouragement to the man who is trying to improve himself, but the results are difficult to estimate, be-cause there is so little reliable in-formation as to what the immates do after leaving the colony. The capital cost of the colony works out at about £300 a head. Lingfield, like Hadleigh, is founded on a religious basis, and is essentially a farm - training colony. Most of the inmates are sent there by boards of guardians. Some 40 per cent, of the inmates are said to go to Canada, where they obtain inde-pendent positions. The Laindon colony was established by the Poplar Guardians in 1904 as a branch workhouse for able-bodied male worknouse for able-bodied male paupers. In Hollesley Bay it seems, from answers to questions asked in parliament and from the little evidence given before the committee, that the experiment, financially at least, is a failure. In March 1908 Mr. Burns stated in the House of Commons that the parliament is the the net less reasonable. mons that the net loss per annum on the Hollesley Bay Colony was £21,000. There is also a small colony at Newdigate, Surrey, established by the Church Army as a test for emigrants.
The Borstal institution for boys (ecc Dorstal) is in some respects a forced labour colony, and is

undoubtedly superior to adult con- for it has even been judicially doubted tinental colonies in that the whole whether an 'agricultural labourer' is basis of its reformative influence is a 'labourer' within the meaning of

the apprenticeship system.

Bibliography.—Report of the Departmental Committee on Vagrancy, 1906, and Minutes of Evidence taken before the Committee and Appendices; Flegut's Tramping with Tramps; Board of Trade Report, 1904; Beston-Thomas' Report on the Methods dealing with Vagrancy in Switzerland; Ribton Turner's History of Vagrants and Vagrancy.

Labour Day, a legal holiday in New York and nearly all the states and territories of U.S.A. (the first Monday in September). It is observed by labour processions and organisations which parade the streets and hold meetings, and all banks and government offices are closed. L. D. was observed in 1909 as a holiday through-

out the United States, with the exception of Arizona and N. Dakota.

Labourdonnais, Bertrand François de, Count Mahé (1699-1755), a French naval commander, born at St. Malo. Went to sea at an early age, and in 1718 entered the service of the French India Company. In 1724 he attained the rank of captain and displayed great bravery at the capture of Mahé, adding the name of the town to his own. In 1735 he served as governor of the Ile de France and Bourbon, an office he continued to hold for five years. At the end of this period he began a conflict with Britain for the naval sovereignty of the Indies and captured Madras in 1746. He was accused by his general, Dupleix, of peculation and maladministration of the affairs in India, arrested, and imprisoned for two years in the Bastille. He wrote: Traité de la Mature des vaisseaux, 1723, and left valuable memoirs, published by his grandson.

Labourers and Labouring Classes. The definition of a labourer, so far as legal rights are concerned, is of but little importance, and decisions involving a definition relate almost exclusively to the liability of employers for accidents under the Employers and Workmens Act, 1875, and the Employer's Liability Act, 1880. The accepted definition is 'a man who digs and does other work of that kind with his hands.' But a motor omnibus driver has been held to be a manual labourer within the Act of 1880. The term 'labourer' is used in the Sunday Observance Act, 1677, in section 1, which forbids any 'tradesman, artificer, workman, or labourer' to exercise his 'ordinary calling upon the Lord's Day,' but the few decisions on that Act do not assist one to arrive at the meaning,

for it has even been judicially doubted whether an 'agricultural labourer' is a 'labourer' within the meaning of the Act. The term is of no importance as regards the Housing Acts, for it has long given place to 'working classes,' which latter phrase has been judicially defined to mean 'the class of persons who ordinarily live in such a state and condition of life that overcrowding was likely to take place,' and by statute (Housing Act of 1903) as including 'mechanics, artisans, labourers, and others working for wages,' and also others working for wages,' and also others working at some 'trade or handicraft whose income does not exceed on an average 30s. a week.' Politically, if the meaning of the terms may be inferred from the persons represented in parliament by a labour M.P., it may be said that all are labourers who either belong to a trade union or could belong to one if they chose.

Labourers, Statute of, At the Conquest, agricultural services were paid for in kind, the labourer or villein being really a serf attached to the soil. After these services were commuted for low money payments, the better class villeins became copyhold tenants, while the rest gradually obtained better terms. The Black Death, however, caused a great dearth of agricultural labour and wages went up, with the result that the Ordinance (see Legislation and Legislative Arocesses) of Labourers was issued in 1349 and re-enacted in 1351 as the S. of L., with the object of securing an adequate supply of field labour at the wages current prior to the plague. It provided that ablebodied persons should work in their own district at the accustomed, rate of wages, while those who gave alms to 'sturdy beggars' should be punished with imprisonment. The consequence, however, was the rise of a class of really free labourers, in spite of the low rate of wages. See Felden, A Short Constitutional History of England; and Ashley's Economic History.

Labour Exchanges. These are local offices directly under the control of the Board of Trade established for the purpose of mobilising labour, gathering information as to employers requiring workpeople, and, conversely, as to workpeople seeking employment, and generally enabling applicants for labour to obtain it. They are an antidote to unemployment borrowed from Germany, and in view of the success attending the experiment in that country, it's remarkable that they were not established in England before the Act of Sept. 20, 1909, though in this connection considerable good had been

done by local distress committees under the Unemployed Workmen Act, 1905. The Act of 1909 empowers the Board of Trade to set up and maintain L. E. wherever they think fit, and to assist any L. E. maintained by registers under the Unemployed

TABLE SHOWING BY TRADES THE VACANCIES FILLED BY THE LABOUR EXCHANGES DURING THE TWELVE MONTHS ENDING DECEMBER 29, 1910 (GENERAL REGISTER).

Trades	Men	Women	Boys	Girls	Total	
Building .	61,816		1 040	!		1
Other works of construction and roads	20.523		1,946		84.285	!
Mining and quarrying	3,676	12	432	1	4,121	1
Metals, machines, imple- ments, and convey- ances Engineering and machines:	-,	1			1	
Labourers	3,434)			:		
Others	28,826	. 0.000	0.400	1		
Ships and boats	12,041 > 5,302	3,320	9,609	: 1,713	70,641	i
Other metal trades .	6,396		i		!	
Textiles	12,301	18,466	2,931	4,209	37,907	÷
Dress: Boot and shoemakers	3,679	1,179)	0.071	C 050	00.001	٠
Others	1,639	7,702	2,671	6,058	22,931	ŀ
Conveyance of men, goods, and messages	31,069	431	30,085	1.722	63.307	1
Agriculture (including hop-	•	-	,	•	1	
Paper prints, books, and	9,775	5,606	1,132	546	17,059	٠
stationery	3,019	3,616	2,417	3,546	12,598	ţ
Wood, furniture, fittings,	7 607	1 150	2,317	749	11,873	
and decorations Chemicals, oil, grease, soap,	7,637	1,170	-,311	140	11,575	į
resin, etc.	2,824	1,171	519	1,083	5,597	į
Bricks, cement, pottery, and glass	1,906	1,069	681	282	3,938	•
Food, tobacco, drink, and	-,		-		1	;
lodging (bread, biscuit,	12,215	22.051	4,712	5,132	44,110	
cake-makers, etc.) Skins, leather, hair, and	12,210				1	i
feathers	737	979	463	891	3,070	ĺ
Precious metals, jewels, watches, instruments,					Ì	:
and cames	1,326	316	764	340	2,776	
Gas, water, and electricity			'		1	1
supply, and sanitary	5,647	102	299	73	6,121	ł
Commercial	6,923	3,175	5,473	1,360	16,931	
Domestic (outdoor):	١	7,303 \	400	0.000	54.500	
Laundry and washing Others	2,790	34,854	962	8,860	54,769	1
Other, general and un-	•		,		ļ	•
defined: (a) General labourers	57,653		1,500		59,153	
(b) Others	11,069	11,815	8,520	7,884	39,288	÷
Post office:			!		1	;
Temporary Christmas	32,788	30	445	1	33,264	ļ
					i	1
Total	347,011	124.397	77,881	44,450	593,739	ì

Workmen Act, 1905, might, after ployment, one year from the passing of the land metal Act, only be exercised under the created the control and with the sanction of the cies. By we Local Government Board, and that that sanction should not be given except after consultation with the Board of Trade. The Board of Trade is empowered to make general regulations with respect to the management of L. E., and the expenses incidental to administering the Act are payable out of moneys provided by parliament. The Act also provides that any person knowingly making false reperson knowingly making laise representations to any officer of a L. E. for the purpose of obtaining employment shall be liable to a fine not exceeding £10. The work done by L. E. in 1910 proved their utility. Over a million persons applied for work, and some 374,313 vacancies out of 458,943 actifed by employers were filled. notified by employers were filled through the L. E. The vacancies filled by men workers comprised 47,042 in the building trade, 39,773 47,042 in the building trades, 33,609 in the carrying trades, 33,609 in metal, machine, and implement industries, 25,899 in the Post Office temporary Christmas staff, 8,905 in agriculture, 6236 in textiles, 6646 in wood, furniture, and fittings, 6446 in food to have and drink trades 7464 food, tobacco, and drink trades, 7464 in general commerce; while boys in general commerce; while boys to the number of 17,000 found employment in the carrying trade, 3600 in metals and machinery trades, 2000 in food and drink trades, and over 1000 in each of the building, textiles, and clothing trades. Indoor domestic work was found for 24,000 women, while 7000 vacancies were filled in each of the textiles and food and drink trades, 5000 in clothing industries, and over 4000 in agriculture. The chief trades or occupations in which vacancies were found for girls were outdoor domestic work, food, drink, and tobacco, paper and stationery, dress, textiles, and carriage of goods. London far outstripped other towns or cities in the number of its applicants (17,000), Manchester being next with only 2000, while in Birmingham, Leeds, and Liverpool, the number was only 1000 in each case. There were 1,945,763 applications for pools and as clown shows 1000 and as 2007 and 1000 and 100 work, and, as shown above, 593,739 were mel. As in the previous year, over 60,000 names remained on the register at the end of the year. On the casual register work was found for 112,192 men, and for 12,812 women. This separation of casual from general work was a novel feature in administration in 1911, and it is therefore difficult to present an exact

ployment. As before, the building and metal and engineering trades created the largest number of vacancies. By way of contrast generally it may be observed that the figures of the German L. E. show a decrease in unemployment all round. The estimates for the 1912-13 budget of expenditure on L. E. is not separately given, but together with the insurance service comes supply service comes to over £3,000,000. The central office of the £3,000,000. The central office of the £1. E. is at Queen Anne's Chambers, Westminster, S.W., the branch exchanges being classified into eight territorial divisions, each with its office and clearing-house, subject to the control of the Central Office. The Beard of Trade is empoyed to ad-Board of Trade is empowered to advance travelling expenses to appli-cants for work where work at a distance has actually been found for them, but such power is subject to restrictions in regard to trade union rates of wages and trade disputes. By the middle of 1912 there were By the middle of 1912 there were some 382 L. E., and in connection therewith some 15 Advisory Trade Committees and 35 Juvenile Advisory Committees. A year later there were over 430 L. E., and non-casual vacancies were being filled at the rate of 3000 a day. In rural districts there are no L. E. as in London, but local post offices and travelling clerks perform the necessary work. The assumption that L. E. would be the resort of none but the casual or unemployable has been the casual or unemployable has been more than refuted by the statistics issued by the Board of Trade. But issued by the Board of Trade. But apart from this no more convincing proof of their utility in finding the right sort of man could be afforded than the fact that many large employers affix outside their gates notices to the effect that men will only be taken on through the exchanges. For full information as to extiticity see the Effectify desired. statistics see the Fifteenth Abstract of Labour Statistics of the United Kingdom, issued in 1912 by the Board of Trade.

Labour Party, The, the name of a political organisation to be found in pointical organisation to be found in modern times in many countries which, broadly speaking, represents, or claims to represent, the interests and aspirations of Labour (i.e. the working class) as against the interests and ideals of Capital (i.e. the employing, or master, class). This political organisation may be revolutioners and heave a default Societies. tionary and have a definite Socialist goal, or it may, as in Great Britain, content itself with striving by contherefore difficult to present an exact stitutional means to ameliorate the comparison between the figures for 1911 and 1910. But on the whole the work done by the L. E. increased in in Great Britain, which must be care-proportion to the increase in unem-fully distinguished from the *Inde-* pendent Labour Party (the I. L. P.) (q.v.), is a purely Socialist body,

was Mr. J. I.P., and he held this position till 1911, when, on his becoming chairman of the party in the House in the House of Commons, he was succeeded by the present secretary, Mr. Arthur Henderson, M.P. The party has at present (1913) forty representatives in the House of Com-

e upon cars of known

mittee (the L. R. C.). When formed in 1900 the membership was 375,000, and it succeeded in returning two members to the Commons in that year. As a parliamentary force it dates from the 1906 election, when its membership was 921,000, and when out of 50 parliamentary and it. when out of 50 parliamentary candidates 29 were elected. The L. P. by its constitutior

other political it has formed Irish parties

majority. The only country in the world which has experienced a Labour government in power is Australia, where that party has held the reins of office in both the federal and state parliaments. The official organ of the L. P. in Great Britain is the Daily Cilizen (q.v.), and its office 28 Victoria Street, London, S.W.
Labrador, a peninsula in the most

easterly part of the N. American continent, situated between Hudson Bay and the Gulf of St. Lawrence. Its greatest length is 1100 m., and its breadth 170 m.; area 120,000 sq. m. The interior has not yet been fully explored. A high plateau, rising to an elevation of some 2000 ft., deseends along the Hudson Bay coast to 500 ft. There are many long rivers, the greatest of which is the Hamilton, which at the Grand Falls has a court.
magnificent drop of over 300 ft. Caracte
Other rivers are the Koksoak, Whale, and Payner

and Payner.

Bay; and ti
and Rupert

The rivers are connected by large sheets of water, which include lakes Mistassini. Clearwater, and Kaniapiskan. The coast is rocky, broken the with narrow inlets, and fringed the persons portrayed in his Caractères. Orneille, Fontenelle, and Benserade with numerous small islands. Valuable fish, such as salmon, cod, tront, etc., is caught, and the wild animals, bears, foxes, beavers, and martens, bears, foxes, beavers, and martens, are hunted for their fur. The climate is rigorous on the northern coasts, but temperate in the S.

the I. L. P.) L. was probably visited by the cialist body, Norsemen in the 11th century. It may have been sighted by John ous socialist Cabot in 1498, but it is unlikely that r to secure he visited its coasts. Cortereal, a The first Portuguese navigator, visited the country and gave it its present name, derived from Portuguese llavrador, a yeoman farmer. The peninsula was ceded to Great Britain in 1763 by the Treaty of Paris. It is now divided politically between Canada, the propolitically between canada, the province of Quebec, and Newfoundland. The region by the Atlantic is a dependency of Newfoundland, and is separated from Canadian territory by a boundary line running N. and S. from Anse Sablon. The territory of Ungava, in Labrador Peninsula (355,000 sq. m.), is now absorbed in Quebec. There are no important towns in L., but there are Moravian mission, stations at Okkak, Nain, Hopedale, and Ramah. The popula-tion, which is made up of Indians, Eskimos, and some whites, is esti-mated at 14,500.

Labradorite, a soda-lime felspar of the plagioclase group, mostly bluish and greenish in colour, abundant in St. Paul's Is., Labrador. Used in

iewellery.

Labrax, the generic name of cer-tain species of fishes belonging to the teleostean family Serranide, or sca-bass; it is synonymous with Morone, and is found in the Mediterranean

and Atlantic oceans.

La Bruyère, Jean de (1645-96), a French essayist and moralist, born at Paris, his father being controller-general of finance to the Hôtel de Ville. He was educated at the University of Orleans and called to the bar in 1673. He abandoned this for a post in the Revenue Department at Caen, which he sold in 1686. He was then introduced by Bossuet to the household of the great Conde, to whose grandson, Henri Jules de Bourbon, he became tutor, and passed the remainder of his life in the household of the prince or at court. The first edition of his Caracteres appeared in 1688, and from the fourth to the ninth edition he augmented and improved this work.

North Borneo Company; it was then annexed to the Straits Settlements. It has a fine harbour which affords good anchorage for ships, and possesses extensive coal beds and a railway. It is flat and thickly wooded. and possesses a good supply of water. L. is an active market for the products of the neighbouring islands of Borneo and the Sulu Archipelagoedible birds'-nests, camphor, india-rubber, wax, sago, hides, etc. The chief product is sago-flour. The island is connected with Singapore by submarine cable. Capital, Victoria. Pop. 9000, mostly Malays.

Laburnum, a genus of leguminous plants, contains only three species; they are natives of Europe and Asia and one is common in British shrubberies. This is L. vulgare, which is noted for its pendulous racemes of beautiful yellow papilionacous flowers, and in all its parts it is highly

poisonous.

Labyrinth (Lat. labyrinthus), a term applied by the Greeks and Romans to buildings, chiefly subterranean, containing intricate chambers and passages difficult of egress. The most celebrated were the Egyptian, Cretan, and Samian, the first containing 3000 chambers and reckoned as one of the wonders of the world. A description of this is given Herodotus and Strabo. built on the shore of Lake Meeris, was the work of Amenembat III. (2300 B.C.), and was discovered by the Egyptologist Lepsius. It was probably intended for sepulchral pur-poses. The Cretan L., even more tamous, is said to have been the work of Dædalus, King of Minos. Similar in construction were the Samian and the Italian, the latter forming the tomb of Lars Porsena of Clusium. Modern Ls. or mazes in gardening are imitations of the Cretan, the celebrated maze at Hampton Court being the best known.

Lac, or Lakh, derived from a Sanskrit word laksha, meaning one hundred thousand. Generally used in India to signify 100,000 rupes, the nominal value of which is £10,000; the real value £6666 or \$33,330.

Lacaille, Nicholas Louis (1713-62), a French astronomer, was born at Rumigny in the Ardennes. Studied Studied theology, and after taking deacon's Laccolites were probably formed by orders devoted himself to science. In 1739 remeasured the French are degree of viscosity, with sufficient of the meridian, an operation lasting internal pressure to cause arching of two years, and was successful in ob-

expedition to the Cape of Good Hope. which was highly successful, and resulted in his Calum Australe Stelliferum. He also wrote Astronomia Fundamenta; Tabula Solares, etc.

See R. Wolf, Geschichte der Astronomie. La Calprenède, Gautier de Costes, Seigneur de (1610-63), a French novelist and dramatist, born at the Château of Tolgon, near Cahors, Dordogue, prominent among French writers of the 17th century. Author of several long romances, viz.; Cassandre; Cléopêtre; Les Nouvelles; Faramond; and several plays after the style of Corneille, including Bradamante, Jeanne d'Angleterre, and Le Comte d'Essex, etc. See Korting, Geschichte des französischen Romans

tri or: Gι

the more inaccessible region in the Peten district of Guatemala. speak a dialect of the standard Maya of Yucatan. Until 1750 they were hostile to the whites, and even now, as far as possible, avoid contact with them. Though under Spanish power, they retain a certain amount of independence, and follow many of their ancient customs and religious rites. See Brinton's The American Race, 1901.

La Carlota: 1. A tn. in the prov. of Cordova, Spain, 16 m. S.S.W. of the town of Cordova, with manufs. of linen. Pop. 6000. 2. Or Simancas, a tn. in the prov. of Negros Occidental, Philipping to 11 gm S. of Pacaled. Philippine Is., 18 m. S. of Bacolod. Pop. 14,000.

Laccadive Islands, a group of fourteen low coral islands in the Indian Ocean (nine inhabited), 200 m. W. of the Malabar coast. A coral rest ex-tends round each of the islands and forms a lagoon where coir (cocoa-nut fibre), the staple product, is soaked. Other products are coco and betel nuts, sweet potatoes, and rice. Vasco da Gama discovered the group in 1499. Area (estimated) 80 sq. m. inhabitants are chiefly Mohammedans and number about 10,500.

Laccolith, or Laccolite, an intru-sion of igneous rock between two strata. The characteristic shape is that of a plano-convex lens, being flat underneath and arched above.

Lace, an ornamental textile fabric with an open-work pattern produced by means of flax, cotton, silk, silver, or gold threads. There are three distinct varieties of L., 'needle-

early English documents prior to that date, but it was probably cord or braid twisted and plaited together and used as a strap or tie. Point L., made by the needle, is associated with Venice, where the earliest point L. (punto in aria) was made. The design was drawn on parchment, which was then stitched to a piece of fine, strong linen. The main lines of the design were stitched through on to the linen and afterwards the on to the linen and afterwards the pattern was darned over, or sewn in with buttonhole stitches and finally the parchment cut away. The designs used in this kind of L. was generally stiff and geometrical in form. 'Rose' (raised) point L. (gros point de Venise) dates as far back as 1640, and was done in relief. The main pattern was held together by brides or tyes, while solid knots, stars, or flowers were worked into the This kind of L. was used principally for altar cloths, ecclesiastical vestments, and jabots. The sart of making point L. spread through Italy into France, where Alencon became the chief centre of lacemaking (see Despierres' Histoire du point d'Alençon, 1886). One of the earliest pattern-books was published in 1527 by Pierre Quintz of Cologne, under the title New and Subtle Book Concerning the Art and Science of Embroidery, Fringes, Tapestry-Making, as well as other Crafts done with the Needle. The point de France was first produced in imitation of the Venetian designs, but later distinctive patterns came to be used in France principally for altar cloths, ecclepatterns came to be used in France and Flanders. Point L. was also and Flanders. made at Brussels, its distinctive feature being that the flower or star ornament was made separately and sewn on to the rescau or groundwork.

Pillow L. is made by hand with bobbins on a pillow. It is supposed to have been invented by Barbara Uttmann of Saint Annaberg, Saxony, in the mid 16th century, but it must have been been in New Adam by the have been known in Flanders by the end of the 15th century according to a picture painted in 1495 by Quentin Matsys. The parchment on which the pattern has been drawn is fixed on to a pillow or cushion in which pins are stuck at regular intervals. The various threads required are wound round several bobbins; as many as 1000 bobbins may be cmployed at a time in the more elaborate patterns. The work is done by means of twisting and plaiting the threads. musician, and pu Much of the modern pillow L. has la Musique, 1785.

point,' pillow,' and 'machine lace,' a machine-made background, inthe last made by steam-driven machinery in imitation of the former made by twisted bobbin net. The flower embroidery worked on the net gives the effect of woven cloth.

Machine-made L. dates from the 16th century. L. is mentioned in

with the manufacture in Nottingham of net or tulle, which could be used as a background for pillow L. The frame first used was a modification of the hosiery frame invented by William Lee towards the latter part of the 16th century. The net made on this frame consisted of a single thread, and unravelled very quickly, but before long a warp-L. machine was invented, by which the loops could be finished off by separate threads, thus making the whole fabric firmer and stronger. In 1810 John Heathcote made improvements in the bobbin-net machine, which was further developed by John Levers in 1813. In 1837 Jacquard's pattern-weaving apparatus made it possible to work designs by machinery on to the net or tulle. Since that date there have been numerous minor inventions in lace-machinery minor inventions in face-machinery, so that the various patterns of point and pillow L. may be so closely imitated that often it requires an expert to distinguish it from what is known as 'real' L.

See Léfebure, Embroidery and Lace (Eng. trans. by Cole), 1888; Cole, Ancient Needle-Point and Pillow Lace 1875, and Canta Lectures on

Lace, Ancient Necale-Point and Pillow
Lace, 1875, and Canta Lectures on
the Art of Lace-Making, 1881;
Doumert, La Dentelle, 1889; Mincoff
and Marriage, Pillow Lace, 1908;
Mrs. Bury Palliser, History of Lace
(new ed.), 1900; and Felkin, History
of the Machine-urought Hostery and
Lace Manufactures, 1867.
Lace Coral, see Polyzoa.
Lacedemon. see Sparta.

Lacedomon, see SPARTA.

Lacenede, Bernard Germain Etienne de Laville, Comte de (1756-1825), a French naturalist born at Agen. From his early youth he showed a great love of natural history, to which he devoted himself in lieu of the military profession for which he was destined. In 1785 he was appointed curator of natural history in the Royal Gardens at Paris, and later held the position of professor in the Jarden des Plantes and at the university. At the out-break of the Revolution, he retired to his country seat, but under the Directory became one of the first members of the institution, Napolcon conferring upon him the dignity of Grand Chancellor of the Legion of Honour, He wrote: Histoire Naturelle des Poissons; Les Ages de la Nature; and continued Buson's Natural History. L. was also an accomplished musician, and published Postique de

Pegasus.

Lacewing Flies have large gauze golden and slender eves. bodies. The female attaches her eggs to plant stems by hair-like threads. From these hatch voracious larvæ which live entirely on green flies (aphides) and are therefore gardeners' friends.

Lachaise, François d'Aix de (1624-1709), a Jesuit priest, father con-fessor of Louis XIV., born at Aix in Forey. L. had the reputation of a man of broad views and upright character, and always avoided extreme Was a friend of Fénelon, fond of antiquarian pursuits, and a man of some learning, and founded the College of Clermont. On the property acquired by his order in 1826, stands the cemetery of Père Lachaise in Paris, called after him. See residence.

R. Chantelauze, Le Père de Lachaise. La Chaussee, Pierre Claude Nivelle de (1692-1754), a French dramatist, born at Paris, and the originator of modern French drama. Produced his first play, La Fausse Antipathie, in treal and the West passes. This canal 1734, followed in 1735 by Le Préjugé à la Mode, and in 1737 by L'Ecole des Amis. He also wrote: Mélanide, L'Ecole des Mères; La Gouvernante; L'Ecole de la Jeunesse, and several L'Ecole de la Jeunesse, and several Eleutheropolis, and one of the capitals of the capitals. Contes in verse. In his plays L combined the tragedy of com life and pathetic comedy, a named comedie larmoyante,

Laches (Fr. lache, ren Lat. laxus, loose, slow), in equity (q.v.), denotes such delay on the part of a plaintiff in seeking his remedy as will bar his claim to relief; for it is a maxim in equity that 'delay de-feats equity.' Although analogous to the various statutory terms the lapse of which by the Statutes of Limitations (q.v.) extinguishes rights or operates indirectly to transfer them to others, no precise period is necessary to amount to L. All that the equitable doctrine reprehends is unreasonable delay in the circumstances of the case, whereas rights may be barred under the Statutes of Limitations (q.v.) irrespective of the knowledge or means of knowledge of the circumstances of the person whose right is barred. It is not always easy

Lacerta (the Lizard), a small con-basis of the maxim, but generally stellation first mentioned by Heve-speaking the man who sleeps on his lius in his Prodromus Astronomia, rights' is taken to have acquiesced, 1690. Its brightest star is of the actually or constructively, in what he fourth magnitude. Bounded by subsequently seeks to complain of. Cygnus, Andromede, Cepheus, and Hence traud, whether on the part of the defendant or any one else, by which the plaintiff is rendered ignorant of his rights, will not, however long a time has elapsed, prevent the plaintiff from obtaining relief in equity; and this is also the case where the Statutes of Limitations apply. But another principle upon which the courts have acted is that he who delays ought not to be given a remedy when through his neglect or implied waiver of his rights other and innocent persons have acquired rights which, if disturbed, will result in such other persons being placed in an unfair or unreasonable position.

Lachesis, see Moire. Lachine, a tn. of Jacques Cartier co., Quebec, Canada. on Lake St. Louis and the Grand Trunk and Canadian Pacific railways, 7 m. S.W. by S. of Montreal, and a favourite summer residence. It has large tannery, brewery, and pickle factories. There is a canal hence to Montreal (9 m.), circumventing the Lachine Rapids of the St. Lawrence, through which all the water commerce between Mon-treal and the West passes. This canal

B.C. it was during his was to L.

Judah sent Voltaire maintained that this pointed messengers with gifts, hoping thus to voltaire maintained that this pointed incoming to the fact that La C. was unable to prevail upon Semacherib to spare write either of the recog of drama. See G. Lanson in Chaussée et la Comédie in their resetting from the captivity. The town is

now deserted, but is represented by the stone heaps of Tel-el-Hesy. Excavations have disclosed eight cities built one above the other. See Petrie's Tel-el-Hesy, and Bliss's A Mound of

Many Cities.

Lachlan, a riv. of New South Wales, rising in King's co. and joining the Murrumbidgee, a trib. of the Murray. Extensive marshes are found at the latter part of its course, and in the rainy season it is navigable for a considerable distance by small steamers. It is 700 m. long

Lachmann, Karl Konrad Friedrich Tilhelm (1793-1851), a German Wilhelm philologist and critic, born at Brunswick. Studied at Leipzig and Göttingen. In 1808 he became professor of classical philology at Königsberg from the decided cases to infer the University, at the same time begin-

ning to lecture on the Middle High | was converted to Roman Catholicism German poets, devoting the seven years following to the study of this subject. In 1825 he was appointed extraordinary professor of classical and German philology at Berlin Uniand German phinoigy at Bermi Om-versity, and ordinary professor in 1827. He published Betrachtungen über Homer's Hias; edited Catullus, Tibul-lus, Lucilius, Hueretius, etc.; and translated Shakespeare's Sonnets and Macbeth. See M. Hertz, Karl Lachmann, eine Biographie; J. Grimm in Kleine Schriften; J. E. Sandys, History of Classical Scholarship, 1908.

Lachute, a banking tn. in Quebec, Canada, cap. of Argenteuil co., 40 m. W.N.W. of Montreal. Exports dairy

produce. Pop. 2407.

Lacinium, a promontory on the S. coast of Italy, 6 m. S. of Crotona; a bold and rocky headland, forming the termination of one of the offshoots of the Apennines. In ancient times it was crowned by the temple of the Lacinian Juno, the ruins of which have given name to its modern appellation, Capo delle Colonne.

Lackawanna: 1. A riv. in Pennsylvania, U.S.A., rising in the N.E. of the state and entering the Susque-hanna R. at Pittston. Scranton and Carbondale are the chief towns on its banks, and rich mines of anthracite occur in the valley. 2. A city of Eric co., New York, U.S.A., on the Lackawanna R. Pop. (1910) 14,549.

La Condamine, Charles Marie de (1701-74), a French geographer, born in Paris. First served in the army, and then studied science and exploration. In 1731 took part in an expedition in the Levant, exploring the coasts of Africa and Asia, and making collec-tions. In 1735, with Godin and Bou-guer, he formed one of an expedition sent to Peru to measure the length of a degree of the meridian in the equaand show more

Laconia: 1. I U.S.A., cap. (Winnepesaukt Concord. Mt.

thas extensive manufactures of by a very tedious process, owing to machinery, railroad cars, blinds, the number of coats it receives, yarn, hoslery, woollen goods, etc.

Lacrotelle, Jean Charles Dominique Pop. (1910)10,183.:

orian, born at Metz; was Ste Spinta.

Sec Sparta. Lacordaire, Jean Baptiste Henri the Revolution in 1789 and became Dominique (1802-61), a French secretary to the Duke of Roche-preacher, born at Race Cole-d'Or. He studied found the Journal de Duke of Roche-preacher, born at Race Cole-d'Or. He studied found the Journal de Duke of Roche-preacher, born at Race Cole-d'Or. He studied found the Journal de Duke of Roche-preacher, born at Roche

Daningue (1802-01), a French secretary to the Duke of Rochepreacher, born at Race
Coit-ed'0r. He studied to at the Journal de
at Dijon, where he
himself by his rhetoric, and afterlamen as an advocate
in Paris; but in 1823, having read
Lamen as a secretary to the Duke of RocheHe belped to
not he Journal de
to was made prolosself by his rhetoric, and afterlosself by his rhetoric,

and entered the seminary of Saint Sulpice. He was ordained priest in 1827 and chapluin to a convent and to the College Henri IV. He assisted Lamennais in the editorship L'Avenir, and opened an independent free school in 1830 with Montalembert, which only existed for two days. After this had been closed and L'Avenir condemned, he began his Christian 'conferences' at the Collègo Stanislas (1834), which paved the way for his delightful sermons delivered at Notre Dame (1835-36). In 1838 he set out for Rome, where he joined the monastery of Nunciva, Joined the monastery of Nunerva, and prepared his Mémoire pour le rétablissement en France de l'ordre des Frères Prêcheurs, and collected muterials for his Life of St. Dominic. In 1841 he returned to France and continued (1843-51) his conferences at Notre Dame, his funeral orations being especially famous, but his best were his last, delivered at Toulouse in 1854, i.c. a series on the Christian life. In 1860 he was elected a member of the Academy, succeeding De Tocque-ville. His principal works are: Con-sidérations sur le Système Philosophique de M. de Lamennais, 1834; Mémoire pour le rélablissement en France de l'ordre des Frères Prêcheurs, 1839; Vic de Saint Dominique, 1841; Con-férences de Nôtre Dame de Paris, 1836-51; Conferences de Toulouse, 1854. See Life by Montalembert, 1862 (Eng. trans. 1863).

Lacquer and Lacquering. Lacquer is a composition which is used for the preservation of metals, the ingredients of which vary considerably. Two coats are generally put on, especially in the case of metals like brass. But the art of lacquering practised by the Japanese is very different. Their famous 'lacquer-ware' consists of of the earth, wood which is coated with the jude rnal du Voyage of the lacquer-tree, Rhus remicifera. This varnish makes the surface very -- and differs from other varnishes

is respect, that it can endure There are various kinds of er-ware, the best being prepared

His works include: Précis Historique N. American Indians, in which whole de la Révol tribes used to take part. In 1867 France pen 1808; and . les Guerres

: *Guerres* Lacretelle, Pierre Louise de (1101 1824), a jurist and journalist, elder brother of Jean Charles, born at Metz and became an avocat in Paris. He wrote on law and philosophy, and became known to Turgot and Males-herbes. In 1786 be gained the Montyon prize for a Discours sur le préjugé des peines infames, Robes-pierre taking second prize. He died

prejuge des peines infames, kooespierre taking second prize. He died
in Paris. His Œuvres Diverses;
Mélanges de Philosophie et de Littérature were published in 1802-7.

Lacroix, Paul (1806-84), a French
author, born in Paris. He was a
prolific writer, producing romances,
plays, histories, and biographies, as
well as various books on the arts
and sciences of France, one of his and sciences of France, one of his chief works being Le Moyen Age et la Renaissance (produced 1847, with book on the manners. customs, and dress of those times. published two elaborate also works on the History of Prostitution, as well as Histoire du XVIº Siècle en as well as Historie du AVI secce en France; Histoire politique, aneedotique et populaire de Napoelon III. He is best known as 'P. L. Jacob, Bibliophile,' a name suggested by his constant interest in libraries. In 1855 he was keeper of the Arsenal Library. Lacroix, Silvestre François (1765-1843), a mathematician, born in Paris. He filled several important poets among which may be men-

posts, among which may be men-tioned that of professor of mathe-matics at the Collège de France He wrote many books on (1815).mathematics, but is specially famous for his works on the calculus. His publications include: Traité du calcul différentiel et du calcul intégral; Traité élémentaire du calcul des probabilités; Eléments de géométrie; Traité des différences et des séries.

Lacroma, a small island in the driatic, belonging to Dalmatia, Adriatic, and noted for its Austria,

regetation, monastery, and chateau.

La Crosse, cap. of La Crosse co.,
Wisconsin, U.S.A., on the Mississippi
R. near the mouths of the La Crosse
and Black rivers, 130 m. S.E. of
St. Paul. It is an important shipping point in the grain and lumber trades, and has very large lumber mills. There are manufs, of machinery and breweries, and cooperages. Pop. (1910) 30,417.

Lacrosse, the national ball game of Canada, derives its name from the resemblance of the curved netted

Governor Bees suggested the adop-tion of L. as the national game of Canada, and the National Lacrosse Association of Canada was formed; since then the game has flourished greatly in Canada and to a less extent in the United States. The English Lacrosse Association was formed in 1868, but the game was very little played in England until 1902. In that year the Toronto Lacrosse Club sent a team over to play the repre-sentative clubs of Eugland and Ireland. The club's visit, and that of the capital of Ottawa in 1907, have done a great deal to popularise the game. Matches between the N. and S. of England have been played since 1882, a county championship was started in 1905, England played Ireland for the first time in 1881, and inter-varsity matches were instituted in 1903. The object of the game is the same as that of football and hockey, to score goals. The goals must be at to score goals. The goals must be at least 100 and not more than 150 yds. apart; they are 6 ft. by 6 ft., and are set up in the middle of the goal. crease, a space of 12 yds. square marked out with chalk. A net is drawn from the top rail and sides of the goal posts to a point 6 yds. behind the middle of the line between the posts. The side boundaries are agreed on by the captains. No spikes may be worn on the shoes. The ball is made of india-rubber sponge, and must weigh between 41 and 41 oz., and be between 8 and 81 in. in cir-cumference. The 'crosse' is a light staff of hickory wood, with the top bent in the form of a hook, from the tip of which a thong is drawn down and fastened to the shaft about 2 ft. from the handle. It may be of any length but must not be broader than I ft. in any part, and no metal may be used in its manufacture. A team consists of twelve players—a goalkeeper, point, cover-point, three keeper, point, cover-point, three defence fields, a centre, three home fields, an outside home, and an inside home. Each player, save the goalkeepers, is directly marked by an opponent. The game is opened by the two opposing centres 'facing' the ball. Each centre stands with his left shoulder to his opponent's goal and his crosse held wood downwards on the ground; at a given signal each tries to get the ball. No player may handle the ball save the goal-keeper. and he only when saving a shot. For a foul the player is either suspended until a goal is scored or the termina-tion of the game, or a 'free position' stick, with which the game is played, (a free kick at football) is given. No to a bishop's crozier. The game has charging is allowed, but a player may its origin in a similar pastime of the stand in front of an opponent without

touching him. If the ball crosses the these are only to be distinguished by boundary line it is 'faced' by the their optical properties. L. C. is a two nearest players, the rest remainsour, syrupy liquid. miscible with ing where they were. There is no 'offside' rule. The ball is carried on the crosse with a peculiar rocking poses at a moderately high temperature. offside rule. The ball is carried on the crosse with a peculiar rocking motion only learnt by practice. See Sachsetal, Lacrosse and Hockey, 1909. Lacryme Christi (Lat. 'tears of Christ'), a sweet muscatel wine made

from the grapes of Mt. Sonma, near Vesuvius, and so called from a neighbouring monastery. There is a white and red variety, the former being

the better.

Lactantius, Lucius Cælius, or Cæcilius Firmianus Lactantius (c. 250-330), a writer and teacher of Latin eloquence, was probably a native of Italy, but studied in Africa. About 301 he settled at Nicomedia at the l about

Gaul to Crispus, to this

formula

he had become a convert to Chrisne na become a convert to Christianity. His chief work is Divinanum Institutionum Libri VII.. the seven hooks being 'De Falsa Religione,' 'De Origine Erroris,' 'De Falsa Sapientia,' 'De Vera Sapientia et Religione,' 'De Justitia,' 'De Vero Cultu,' and 'De Vita Beata,' Other Cultu,' and 'De Vita Beata,' Other works of his are: De Mortibus Persecutorum, an account of the persecustead and, in account of the persent tions from Nero to Diocletian; De Ira Dei; and De Opificio Dei sive De Formatione Hominis. There is a translation by Fletcher in Anto-Nicene Fathers, vii.

Lacteal, any one of the lymphatic vessels that take up the chyle absorbed from the mucous membrane of the intestines and carry it to the thoracic duct. Chyle, the product of fat-digestion, has a milky-white appearance, and this appearance is communicated to these vessels when full, hence the name.

Lactic Acid, molecular

C₃H₄O₃, an organic acid occurring in sour milk. The names ethylidenelactic acid and ethylenelactic acid are perties. sometimes applied to the isomerides cause amelioration of the distressing a hydroxypropionic acid and s-hydr-symptoms, it should not be persevered oxypropionic acid respectively. The exypropionic acid respectively. former, whose structural formula is CH, CH(OH).COOH, is the one formed by lactic fermentation of sugars, starch, etc., and is more particular --- L. L. A.; the not i tion, but behaves in many respects it is otherwise known as

ture. It forms metallic salts, which are known as lactates.

Lactic Acid Therapy, a system of cating intestinal disorders and treating general weakness by the administration of sour milk, or of preparations containing lactic acid. The sour milk containing actic actu. The sour many theory owes its popularity to the writings of Elie Metchnikoff of the Pasteur Institute at Paris. Many digestive troubles are due to the action of bacteria in causing putrofaction within the intestines, thus giving rise to changes which in the main are detrimental to health, though some of them undoubtedly assist the absorption of food material. Metcl. nikoff proposed to fight the noxious bacilli with other bacilli whose action is conducive to good health. The precise manner in which the lactic bacillus or its products aids digestion is still a matter of doubt, and it may be said that the treatment cannot be unreserved cases.

among pec an everyde testimony experimen

have broug

into good repute. Many preparations are now produced from soured skim milk under various trade names as Fermillac, Heltho, Vitale, Bacillac, Zoulak, etc. The bacteria concerned are backerium lacticum and bacillus bulgarious; they are usually obtained from pure cultures, and are intro-duced into the skim milk when it has cooled after boiling. The souring is then allowed to go on until the casein in the milk is on the point of congula-

tion. These products are usually palatable and have a food value distinct from their curative pro-If the treatment does not

Lactometer, or Galactometer, a contrivance for ascertaining the richness of milk. It generally consists of a graduated glass tube, the number of divisions, as a rule, being 100. This tube is filled with milk to the top of tion, but behaves in many respects graduated giass tuce, the number of like L. A.; it is otherwise known as divisions, as a rule, being 100. This hydracrilic acid. There are still two tube is filled with milk to the top of more isomerides of formula C₁H₁O₃: the graduated part, and the liquid is sarcolactic acid, which occurs in then allowed to stand so that the extract of meat, and an acid of cream may separate. After a time it similar constitution formed in the may be seen how many parts in a lactic fermentation of cane sugar; hundred the cream occupies.

Lactose, or Milk-sugar $(C_{12}H_{22}O_{11})$, a sugar found in the milk of all mammals to the extent of about 4 It may be prepared by per cent. separating the casein of milk with rennet, and evaporating the remainder; crystals of lactose are formed and may be purified by recrystallising from water. L. is not so sweet as cane-sugar, but is much more easily digested by infants, so that cow's milk adapted for use in babies' feeding bottles is commonly sweetened with it.

Lacy, Peter, Count (1678-1751), a ussian field - marshal, born in Russian He entered the Russian Limerick. service in 1697, and being presented to the Czar, Peter the Great, was ap-pointed by him captain in an infantry regiment. He was frequently engaged against the Danes, Swedes, and Turks in 1709-21, and in 1725 was appointed commander in chief in St. Petersburg, Ingria, and Novgorod. He took part in the war for the establishment of Augustus of Saxony on the throne of Poland (1733-35), and made field-marshal (1736). The was made field-marshal (1736). same year he succeeded in reducing Azof, then in the hands of the Turks, and in 1741, being appointed to command against the Swedes in Finland, seized the important Swedish post of Wilmanstränd. L. has been called the 'Prince Eugene of Muscovy.' He did much to reform the Russian army.

Ladakh, a mountainous prov. in the valley of the Upper Indus lying about 13,000 ft. above sea-level. It now forms part of Kashmir, but was originally a division of the Tibetan empire. The capital is Leh. The chief river is the Indus. There are valuable gold wines end iron self, and subolum are mines, and iron, salt, and sulphur are also found. Pop. 30,000.

Ladas: 1. A famous Greek runner, native of Laconia, who gained the victory at Olympia in the δόλιχος (long course of twenty stades). A monument was put up to his memory on the banks of the Eurotas, and there was also a fine statue of him by Myron (c. 430 B.C.) in the temple of Apollo Lycius at Argos. 2. A native of Ægium in Achaia, who gained a victory in the foot race at Olympia

in 280 B.c. Ladd, George Trumbull (b. 1848), an American philosopher, born at Painesville, Ohio. He studied at Western Reserve College and Andover Theo-Reserve College and Andover Theological Seminary, and from 1871-79 was pastor of Spring Street Congregational Church, Milwaukee. He held the chair of philosophy in Bowdoin College in 1879, and from 1881-1901 was Clark professor of metaphysics and moral philosophy at Yale, according professor emerica in 1905. becoming professor emeritus in 1905. S.E. sides. Chief towns on shot He lectured at Andover Theological Novaya-Ladoga and Kexholm.

Seminary, at Harvard as well as in Japan, and at the universities of India, 1906-7. L. has contributed largely to the science of psychology, and was one of the first to introand was one of the first to litto-duce experimental psychology into America. Some of his works are: Primer of Psychology, 1894; Psycho-logy, Descriptive and Explanatory, 1894; Philosophy of the Mind, 1891; A Theory of Reality, 1899; Philo-sophy of Religion, 1905; Knowledge, Life, and Reality, 1909.

Lade, an ancient island off the W. coast of Caria, Asia Minor, Formerly protected the harbour of Miletus, but owing to silting by the R. Meander, is now a hill some miles from the coast. Scene of two battles, 494 B.C. and 201 B.C.

Ladin, a Romance dialect, found in its purest form in the Grisons, Switzerland, particularly in the Engadine lieys. It took

'lingua rustica empire. It has

nthe merature, but among the writers in it have been Johann von Travers, Conrad von Flugi, and S. F. Caderes. An excellent Ladin dictionary by

Zaccaria Pallioppi appeared in 1895. Lading, Bill of, see Bill of Lading. Lado, a tn. of Eastern Sudan, in the Bari country, on i. b. of White Nile, just below Gondokoro. It was founded by General Gordon in 1875.

Altitude 1525 ft. Lado Enclave, a region of the Upper Nile, bounded by the Albert Nyanza on the S.E., the Nile on the E. parallel 5° 30' N. on the N., and meridian 30° E. and the Nile-Congo watershed on the W. Originally administered by the Congo Free State, but since 1910 by the Anglo-Egyptian Sudan. Named from Mf. Lebel Lado Sudan. Named from Mt. Jebel Lado (2500 ft.). Area 15,000 sq. m. Pop. 250,000.

250,000.

Ladoga, Lake, the largest lake in Europe, situated in N.W. Russia, in lat. 59° 56′ to 61° 46′ N. long. 29° 53′ to 32° 50′ E., bordering upon Finland. Area 7000 sq. m. The shores are generally low but rocky in the N.W. and are fringed by numerous small islands. It receives about seventy rivers, of which the chief are the Volkhov, Svir, Wuoxen, Taipala, and Syas, and its outlet is by way of the Neva into the Guil of Finland. The depth is very unequal, the The depth is very unequal, the average being 300 ft. and the maximum (in the N.) over 700 ft. There are numerous rocks and quicksands, and the lake is subject to violent storms which render navigation dangerous. It is frozen for about half the year. There is a chain of navigable canals round the S. and S.E. sides. Chief towns on shore are

which, with the exception of Guam, belong to Germany. They are fifteen in number, ten of which are of volcanic origin, and of these only four are inhabited, while the other five are coralline limestone islands. All of them are densely wooded and the vegetation is luxuriant, the chief productions being eccount and areca palms, yams, manioc, coffee, cocoa, sugar, cotton, and tobacco. The islands were discovered by Magellan in 1521, and called Islas de los Ladrones ' by his crew on account of the thieving proponsity of the in-habitants. The scat of government is on the island of Saipan. They were originally the property of Spain, but were sold to Germany in 1899. Area (excluding Guam) 200 sq. m. Pop. 12,000. Capital, Agana.

Lady, a term used as the feminine nfined lord. 's and

the daughters of dukes, earls, and marquises, who are designated by the title L. prefixed to their Christian name. The wives of baronets and knights are also called L., but the

titic is prefixed to the surname only.
Ladybank, a par. and tn. of Fifeshire, Scotland, 5 m. S.W. of Cupar.
It is an important railway junction, and a picturesque summer resort. There are malting works and linen manufs. Pop. (1911) with Monkston, 1340.

Ladybird, the popular name of the numerous species of polymorphous Coleoptera belonging to the family Coccinellidee, and remarkable their beautiful variety of colouring. Their chief characteristic is the ourious formation of the tarsi, of which only three of the four segments are visible, the third being sunk in the second; the antenne are short and slightly clubbed, and the head is largely consoled by the Aberta largely concealed by the thorax, are often cultivated in Britain. L. There are 2000 species, generally of anceps is a well-known species bearing a bright red or yellow colour, with black or coloured spots.

Ladybrand, a tn. of S. Africa in the (1781-1826), a French doctor, born Orange Free State. Its climate is extended by tracing, and on this account at Quimper in Brittany. He is famous tremely bracing, and on this account as the inventor of the stethoscope, as

tained in the vicinity. Pop. 4000.

Lady Chapel, a chapel dedicated to which matthe Virgin Mary, usually an elongatime of its tion of the choir, built eastward of the high altar and projecting from the main building.

Lady Day (March 25), the day
the festival of the Annunciation
the Blessed Virgin Mary. It is one the four English quarter days. Lady-Fern, or Asplenium Fili-

Ladrones, or Marianne Islands, a famina, a species of Polypodiaceæ group of islands in the Pacific Ocean, frequently found in Great Britain and has several beautiful varieties,

and has several beautiful varieties, such as clarissima. The plant is an exceedingly graceful fern of light green colour, and delicate texture. Lady Margaret Hall, a hall of residence at Oxford for women students. It was founded in 1878 according to the principles of the Church of England, but with full religious England, but with full religious liberty for the members of other denominations. All intending students must pass an entrance examination, 'Responsions,' and undertake, as a rule, to read for an honours degree. Women students are admitted to all the examinations of the University of Oxford except those in medicine, and are allowed to attend nearly all the university lectures, but they are not granted degrees.

Lady's Mantle, see Alchemilla. Ladysmith, a th. in Natal, S. Africa, on the Klip river, 80 m. N.N.W. of Pletermaritzburg. It was founded in 1851 and owes its growth to the open-ing of the railway from Durban in 1886 and the extension of the line to ow the trading

part of Natal, junction in the province. It was the centre of the struggle at the beginning of the South African War (1899-1902). Pop. 5690.

Lacken, a tu. of Brabant prov.. Belgium, 2 m. N.W. of Brussels, of which it forms a suburb. Lacken Castle, the summer residence of the Belgian royal family, stands on a hill. There is a Jardin Colonial, and mily the suburb has a noted carpet-making for industry. Pop. 30,438.

Lælia, a genus of Orchidacce, is

closely allied to the genus Cattleya.
There are in all twenty species, all of which occur wild in tropical America, and many of which are epiphytes. The leaves are fleshy and the flowers very beautiful, for which reason they are often cultivated in Britain. L.

tremely practing and on this account is the interesting of the sum Trailedel'.

languages: de politine : fièrres inter-the Journal

s principal l Necker for the chair of ie France in

Academy of Medicine.

Laer, Pieter van, see BAMBOCCIO. Laertes: 1. In ancient Greek legend. King of Ithaca and father of Odveseus. He was the son of Acrisius and Chalcomedusa and husband of Anticleia. In his youth he conquered Nericum and took part in the Calydonian hunt and the expedition of the Argonauts. While Odysseus was at Troy he lived in rustic retirement, but after his return was made young

again by Athena. 2. A character in Shakespeare's Hamlet. Laertius, Diogenes, see DIOGENES

LAERTIUS.

Latare Sunday, see GOLDEN ROSE.
Lævulose, see SUGAR.
Latarge, John (1835-1910), a landscape and ecclesiastical painter, born at New York. He began by making illustrations to the poets in 1859, but ultimately turned his attention to stained glass, becoming president of the Society of Mural Painters. He executed the 'Battle Window' at Harvard University, besides windows for various churches in New York, but he also exhibited some waterbut he also examples some force: colour sketches in 1895. He wrote: Considerations on Painting, 1895; and An Artist's Letters from Japan, 1897.

An Artist's Letters from Japan, 1897.
La Farina, Giuseppe (1815-63), an Italian historian, born at Messina. He was obliged to leave Sicily in 1837, but returned in 1839 and conducted several Liberal newspapers, ultimately removing to Florence. Here he established, in 1847, L'Alba, a democratic journal, advocating Italian freedom and unity, but went back to Sicily on the outbreak of the revoluhe · cumentata dell. del 1848-

49, and from 1851-55 Storia d'Italia dal 1815 al 1848 (6 vols.). Other works of his are: La Germania coi suoi monumenti, 1842; L'Ilalia coi suoi monumenti, 1842.

Lafayette, the cap. of Tippecanoe co., Indiana, U.S.A., on the Wabash R., 58 m. N.W. of Indianapolis. It stands on rising ground at the head of navigation on the river. There are manufactures of farm implements, machinery, carpets, etc., and a porkpacking industry, and is a grain
market. The seat of Purdue University. Pop. (1910) 20,081.
Lafayette (1873-1911), usually
known as 'The Great Lafayette,'

real name was Sigmund whose He was a great show-Neuberger. man and made a speciality of illu-sionist turns in which he was unsurand which were equally

1822, and was a member of the Royal, once threatened to bring him into conflict with the police, and of his dog, 'Beauty,' for whom he mani-fested the most devoted affection. In May 1911 'Beauty' died at Edinburgh and was accorded a most claborate funeral, being laid in a grave by the side of the spot where L. himself had arranged to be buried. On the evening of May 9, 1911, while he was performing his turn at the Empire Theatre, Edinburgh, the theatre was burnt to the ground, and L., who waited to secure a lion which took I at the the terms was buried in the rather than the which and buried under his name were later found to have been those of one of his troupe, but L.'s own body was ultimately recovered.

La Fayette, Gilbert Motier de (1380-1462), a marshal of France, was descended from an ancient family of Auvergne. He served under Bouci-caut and John I., who made him lieutenant-general in Languedoc and Guienne. In 1420 he was created marshal of France for his successes over the English and Burgundians on the Loire. He was in command of the troops at Baugé in 1422, and fought with Joan of Arc at Orleans

and Patay in 1429.

La Fayette, Marie Joseph Paul Roch
Yves Gilbert Motier, Marquis de (1757-1834), a French general and politician, born in the castle of Chavagnae in Auvergne. He came into his estates at the age of thirteen, and having served as sub-lieutenant Noailles for a period, quitted France and sailed for America in 1777 to aid the colonists. He distinguished him self on the side of Washington, the colonists. He ausurement self on the side of Washington, especially at the defence of Virginia in 1781, and at the battle of Yorktown in 1782. He had been made a major-general in the French army (1781), and in 1787 took his seat in the Assembly of Notables and demanded the convocation of the States general, thus becoming a leader in the French Revolution. In 1789 he was elected to the States-General, and being made vice-presi-dent of the National Assembly laid on the table a declaration of rights on the table a deciaration of rights based on the American Declaration of Independence. The same year he was chosen colonel-general of the New National Guard, and it was he who proposed the combination of colours now in the tricolour cockade of France. His position was difficult although he struggled for corden and although he struggled for order and bumanity, the Jacobins detested his moderation, and the court hated his popular in England, America, and on reforming zeal. He supported the the Continent. Many stories are told abolition of title and all class priviof his eccentricities which more than leges, but the hatred of the Jacobins

increased and he was compelled to | 1664 (he was forty-three) that he protake refuge in Liège. He was imprisoned by the Austrians for five years, but released by Napoleon, and grain was a leader of the Opposition (1825-30). In 1830, during the Revolution, he resumed his leadership of

volution, he resumed his leadership of the National Guard, but was as unsuccessful as before. See Mémoires, correspondances et manuscrits du Général La Fayette, and E. Charavay, Le Général La Fayette.

La Fayette, Marie Madeleine Pioche de la Vergne, Comtesse de (1634-93), a French author, born in Paris. She studied Greek, Latin, and Italian, one of her tutors being Gilles de Ménage. She was friendly with Mme. de

Princesse de Montpensier, appeared in 1662, Zayde in 1670, and La Princessede Clèves in 1678. The latter, her chef d'œuvre, which gives a vivid picture of the court life of her day, bears a striking contrast in its simplicity to the lengthy and ex-trayagant romances of the time, and met with much criticism, even from Mme. de Sévigné. In answer to this criticism she wrote her last novel,

Madame ac La rayene.

Jacques (1767–1844), a la Rayonne. He Laffite, Paris banker, born at Bayonne. started as a clerk in a bank, but by 1814 he was governor of the Bank of France, and in 1818 saved Paris from a financial crisis by buying a large amount of stock. In 1830 his house was the headquarters of the revolutionary party, and he supplied a great part of the necessary funds. In 1831 he resigned, and retired from office a ruined man, but with the remnant of his fortune founded a Discount Bank in 1837, which only prospered during his lifetime. La Fontaine, Jean de (1621-95), a French poet, born at Château-

time, and he awarded La Fontain pension of 1000 francs for a plece verse quarterly. After this he to

duced anything of importance. In this year the first book of his Conles appeared, the subjects of which are taken from Boccaccio, Ario Machiavelli, and other writers. stories are admirably told, but the stories are admirably told, but the book is coarse. In 1668 his Fables Choisies mises en Vers appeared, and in 1669 his Amours de Psyche et de Cupidon. The Fables, which are free from the impropriety of the Contes, are known universally, and are the coarse. generally regarded as his chef d'œuvre. They exhibit the fecundity and versatility of the author, and what perhaps is the greatest praise, and this is given by De Sacy, they give delight to three several ages— to the child by their freshness and vividness, to the student on account of their perfect art, and to the man of the world on account of the subtle reflections on character contained therein. La Fontaine was received into the Academy in 1684. See Walckenaer, Histoire de la vie et des ouvrages de La Fontaine.

Lafontaine, Sir Louis Hypolite (1807 -64), a Canadian statesman, born in Lower Canada; educated at Montreal; became a barrister. In 1830 he became a member of the Legislative Assembly, and about 1839 leader of the 'parti pretre.' He was opposed to the union of Upper and Lower Canada in 1840. He was an M.P. in 1841: Attorney-General in 1842-43: Premier for Lower Canada in 1848, and Chief Justice of Lower Canada in 1853.

Lagardo, Paul Anthon de (1827-91), a German Orientalist, born at Berlin, his real name being Bötticher, and Lagarde being assumed in 1854. He was a professor at Göttingen University from 1869 to his death. He edited Didascalia apostolorum syriace, 1854: Prophetæ chaldaice, 1872; Hagiographa chaldaice, 1874; Arabic, Syriac, and Coptic translations of the Scriptures, and also wrote many works on Persian and other Oriental

verse quarterly. After this he to up writing seriously for a time, and produced Le Songe de Faux, a medley britishcommissioner; in 1892 produced Le Songe de Faux, a medley britishcommissioner, Swaziland; from of prose and poetry on Fouquet's 1893-1901 resident commissioner, country house, and Les Ricurs du Basutoland; from 1902-4 chairman of Beau-Richard, a ballad, the same S. African Native Affairs Commissioner; from 1901-7 commissioner for Native a charming and gifted writer, was disspated and idle, and it was not until and Executive Councils, Transvaal.

Lager Beer, see Varieties of beer.

Lagerlof, Selma (b. 1858), a Swedish novelist and woman of letters, born in Vermland, Sweden; educated at Royal Women's Superior Training College, Stockholm; taught at Lands-krona, 1885-96. In 1890 she received a prize in a magazine for some chapters of Gösta Berlings Saga, and took up literature in earnest after 1895. She received a doctor's degree from Upsala University in 1907, and gained the Nobel prize in 1909. Her works include: Gösta Berling, 1891; Invisible Links, 1894; Miracles of Antichrist, 1897; From a Swedish Homestead, 1899; Jerusalem, 1901; Legends of Christ, 1904; The Ad-ventures of Nils, 1906; The Girl from the Marsh, 1908.

Laghouat, or El Aghuat, a military cap. of Algerian Sahara, 200 m. S.W. of Algiers. An important mark

Pop. 7000. Lagny, Thomas Fantet de (1660-Lagny, Thomas Fantet de (1660-1734), a French mathematician, born at Lyons; studied for law. His fondness for and ability in mathematics gained him the patronage of Abbé Bignon, and he became professor of hydrography at Rochefort. In 1716 he became sub-director of the Banque Canarala and was also a keeper of the

'uris. Author of works.

Lago Maggiore, see MAGGIORE.

Lagony, or Lagonoy, a tn. of Luzon, Philippine Is., in the prov. of Ambos Camarines. It is situated in the S.E. of the island, on the Bay of Lagony.

Pop. 10.000.

Lagoon (Fr. lagune, Lat. lacuna, a pool): 1. A shallow stretch of salt water near the sea. Such Ls. have been formed by the gradual raising of a sand-bar on the extension of a spit on a low shore, so that a sheet of water is isolated from the sea. 2. A sheet of fresh water at some distance inland, usually shallow and of small extent. Such are found in the old lake plains of Australia, and are the haunt of numerous aquatic birds. 3. The expanse of smooth sea-water enclosed by a coral reef or atoll in the South Seas, etc.

Lagos, a former British crown colony of W. Africa, on the Slave Coast, since 1906 a W. prov. of S. Nigeria. Area 29,000 sq. m. It is the centre of the W. African palmoil trade, and also exports oil on trade, and also exports on nuts, rubber, cotton, coffee, cacao, ivory, and gum-copal. The climate is very unhealthy for Europeans. Pop. 1,500,000 (500 Europeans).

Lagos, the cap. of S. Nigeria, W. Africa, on the Ogun R. It is the only

natural harbour on the coast for 1000

Brewing—for steamers, and a trade centre. Pop. 53,000 (400 Europeans).

Lagos, a fortified seaport of Algarve Lagos, a fortified seaport of Algarve prov. Portugal, on S. coast, 110 m. S. of Lisbon. There are old walls and an aqueduct, and near is the site of ancient Lacobriga. Pop. 8500.

Lagos, a tn. of Jalisco, Mexico, on Mexican Central Railway, 100 m.

N.E. of Guadalajara. Near it are

some famous silver mines, and the town is noted for its churches. Also called Lagos de Morena. Pop.

14,716.

La Grange: 1. The cap. of Troup co., Georgia, U.S.A., 60 m. S.W. of Atlanta. It has cotton mills and various manufactures, and contains several educational establishments. Pop. (1910) 5587. 2. A tn. of Cook co., Illinois, U.S.A., on the Burlington route, 15 m. S.W. of Chicago. Pop. (1910) 5282.

Lagrange, Joseph Louis. Comte (1736-1813), a French mathematician, born at Turin of French parents; educated at the College of Turin. At an early age he became professor of mathematics in the Royal School of Artillery, Turin, and there formed an association which rose to the status of an Academy of Sciences. He contributed larely to the Memoirs of the Academy of Turin, investigating, among other subjects, the propagation of sound, the vibration of chords, the motion of fluids. In 1764 he gained a prize offered by the French Academy of Sciences for a *Theory of* Academy of Sciences 10.

Academy of Sciences 10.

Academy of Sciences 11766

Sciences in 1772 a foreign associate of the Academy of Paris, and in 1787 settled in Paris, where he became in 1794 professor of geometry at the Polytechnic School. Author 1788;

great Variations.

La Grita, or Grita, a tn. in Venezuela, S. America, in the state of Los Andes, situated 60 m. S.W. of Merida. on the R. Grita. Tobacco, sugar, and

coffee are largely grown. Pop. 10,500.
La Guayra, or La Guaira, chief seaport of Venezuela, on the Caribbean Sea, 10 m. N. of Caracas, of which it is the port. It is closely surrounded by mountains except to seaward. There is an excellent harbour of 90 acres, with a depth along side the quays of 10 to 40 ft., and a large export trade is done in coffee, cacao, indigo, coffee, cacao, indigo, and hides. The transfer cotton, sugar, and hides. The town is badly built, and the climate unhealthy. Pop. 12,000.

Laguna: 1. A prov. of Luzon, Philippine Is., on Laguna Bay. The district is mountainous (chief peaks, m.; and is an important port of call Banajao, 6000 ft., and Maquilin,

3500 ft.), with fertile valleys, and Louis XIV. He was for some years rice, coffee, and cacao are produced. Cap. Santa Cruz. Area 752 sq. m. College of France. His works include: Pop. 150,000. 2. A tn. of Tenerifie, Conic Sections, 1685; Treatise on formerly capital of Canary Is, siturice, coffee, and aceao are produced. Cap. Santa Cruz. Area 752 sq. m. Pop. 150,000. 2. A tn. of Teneriffe, formerly capital of Canary Is., situated at an altitude of 1790 ft. A bishop's sec. Pop. 13,000. 3. Seaport of Santa Catharina, Brazil, on E. coast at the mouth of a lagoon running northwards parallel with the running northwards parallel with the coast, 60 m. S.W. of Desterro. Pop. 3000.

Lagunaria, a small genus of evergreen plants which are natives of Australia. L. Patersoni, the commonest species, is known variously as the white-oak, white-wood, and cow-

itch tree.

Lagurus Ovatus, the hare's tailgrass, a species of Graminee, constitutes in itself a genus, and is cultivated as an ornamental grass. It grows wild in Guernsey and round the Mediter-

ranean.

La Habana, or Havana, a prov. of Cuba, W. Indies, lying between Matanzas and Pinar del Rio provs. Area, 2770 sq. m. The coast is much indented, and the district is well watered. Timber, coffee, sugar, tobacco, cereals, fruit, and vegetables

are grown, and there is much mineral wealth. Cap. Havana. Pop. 424,804.

La Hallo, Adam de (c. 1240-87), a French poot and dramatist; nicknamed 'le bossu d'Arras,' for what reason is unknown. Born at Arras, and in 1283 followed Robert II. of Artois to Naples, where he ded. He is notable as the originator of comic is notable as the originator of comic opera in Le jeu de Robin et de Marion, and of modern comedy in Leju Adam ou de la fuellie, which is partly auto-blographical. His works were edited by Coussemaker (1872) and Ram-

beau (1886). La Harpe, Jean François de (1738-1803), a French dramatist and critic, born at Paris, educated at College of Harcourt. In 1766 he became a member of the French Academy, and in 1786 began to lecture on literature at the Lycee of Paris. He was active in the Revolution, and was imprisoned in 1793. His works include: War-wick, 1763; Timoléon; Pharamond; Eloges; Gustavus Tasa, 1766; Mélanie, 1770; Philocèle; Tangu et Felime; Cours de Littérature (18 vols.).

Lahiro, Philippe de (1640-1718), a Parach winter, evaluter and general de la contraction de l

French painter, sculptor, and geo-metrician, born in Paris, the son of Laurent de Lahire, a celebrated painter (d. 1656). In 1678 he was admitted into the Academy of Sciences, and was employed by the government in continuing Picard's measurement of the meridian. He also assisted Colbert, and was engaged by the aqueducts proposed to be made by at

1702. See Fontenelle, Eloge de Lahire.

Lahn, a river of Germany, and a trib. of the Rhine. Rising in the S. of Westphalia, its direction is generally W.S.W. It passes through the towns of Giessen, Marburg, Wetzlar, and Ems. and eventually joins the Rhine 6 m. above Coblentz. The length of the river is 135 m. of which length of the river is 135 m., of which the part from Giessen is canalised.

La Hogue (harbour), see HOGUE. Lahore, a div. of Punjab, British

tan, Montgomery, Jhang, Gujran-wala, Lahore, Amritsar, and Gurdas-pur. The extremes of temperature are very great, and the rainfall un-certain, so that the district is parched and arid. Area 24,872 sq. m. Pop. 5,466,664.

Lahore, the cap. of dist. and div. of same name, Punjab, British India, on a trib. of the Ravi, 32 m. W. of Amritsar. It stands in a populous and fertile plain at the junction of several railways. The city has two parts, the old town and the new. The former, which was of great importance under the Mogul emperors, is surrounded by walls, and includes the citadel, where the palace of the Sikh sovereigns stands. It has narrow and winding streets, and contains some splendid mosques and interesting ruins. new European quarter includes Naulakha, Anarkaill, and Donald Town, and contains the Government House, the Lawrence Gardens, Pun-jab University, etc. There is a mili-tary cantonment 6 m. away. L. be-came British in 1846. There are numerous manufactures and large

railway shops. Pop. 228,687.

Lahr, a tn. of Germany in the grand-duchy of Baden, on the Schutter, 9 m. S. of Offenburg. The prin-

ter, 9 m. S. of Offenburg. The principal industries are lithography and printing, and manufs. of woollens. leather, tobacco, etc. Pop. 15,192.
Laibach, the cap. of Carniola, Austria, Hungary. on R. Liabach, 7 m. from its confluence with the Save, and 35 m. N.E. of Trieste. The seat of a prince highout It contains some of a prince-bishop. It contains some fine buildings, including an old castle. There are cotton spinning and bell founding industries. L. was visited by a severe earthquake in 1895. Pop. 41,711.

Laidlaw, William (1780-1815), a friend of Sir Walter Scott, born in Colbert, and was engaged by the Selkirkshire, and took up farming. Academy in taking the levels for the in 1817 he became a kind of steward Abbotsford, acting as Scott's

amanuensis and general adviser. He | 2. A wrote several lyrics and ballads, notably Lucy's Flittin', and compiled part of the Edinburgh Annual Register under Scott's direction. After Scott's

Laing

estates, and died at Contin. Laing, David (1793-1878), a Scottish historian and antiquary, born in Edinburgh, the son of a bookseller; educated at Edinburgh University, and joined his father, becoming partner in 1821, and travelling in search of rare books. In 1823 he became secretary to the Bannatyne Club, and edited many of its issues; in 1826 fellow of the Society of Antiquaries in Scotland, and contributed largely to its *Transactions*; in 1837 librarian to the Signet Library; and in 1854 honorary professor of antiquities to the Royal Scottish Academy. Among the works of which he issued valuable editions are: valuable Poems, 1834; Bailine's Poems, 1834; Bailine's 1841-42; Dunbar's Letters and Journals, 1841-42; Works of John Knox, 1846; and the poems of Lyndsay, Dunbar, and Henryson.

Laing, Samuel (1812-97), a British author, politician, and railway administrator, born at Edinburgh; educated at Cambridge, called to the bar in Lincoln's Inn in 1837. He was secretary to the Railway Department of the Board of Trade, 1842-46; a member of the Railway Commission 1845-46; chairman of the L.B. and S.C.R., 1848-52 and 1867-94; chairman of the Crystal Palace Company, 1848-54; Liberal M.P. for Wick, 1852-57, 1859, and 1865-68; financial secretary to the Treasury, 1859-60; financial minister in India, 1860; M.P. for Orkney and Shetland, 1872in Lincoln's Inn in 1837. He was M.P. for Orkney and Shetland, 1872- Ls. are almost universally distri-

Author of Modern Science Modern Thought.

Laing's Nek, a pass through Drakensberg, Natal. Alt. from to 6000 ft. The railway, opene 1891, pierces it, and previously the in road over it was the chief means of do communication between Durban and It figured in the Boer War

Pretoria. of 1880-81.

Lairesse, Gérard de (1640-1711), a Dutch painter and etcher, born at Liege. He was a pupil of his father, Regnier L., but modelled his style on Nicholas Poussin. He worked for some time in Utrecht, but finally settled in Amsterdam, where he died. At the end of his life he became blind. Wrote Art of Painting (Eng. trans. by W. M. Craig), 1817. Lais, the name of two famous

famous for her greed and ness; among her lovers

philosophers Aristippus and Diogenes. ground Ls. aredue to a similar decom-

native of Hyccara. Sicily (b. c. 420 B.C.), taken to Corinth after the Athenian expedition to Sicily. She was the rival of Phryne, and numbered the painter Apelles among death he was factor on two Ross-shire her lovers. She was stoned to death by some jealous women of Thessalv.

Laissez-faire, a French phrase meaning 'let alone,' an axiom of some political economists deprecating state interference in attempts to regulate or restrict trade competition. origin is attributed to Legendre about 1680, who, in an interview with Colbert respecting government interference with commerce, remarked 'Laissez-faire, laissez-passer.'

Laity, The, strictly speaking, means all persons who are not clergy, but the term has been extended to mean all persons who are not of a certain profession, such as law or medicine, as distinguished from all belonging

to it.

Laius, in ancient Greek legend, the son of Labdacus and father of He succeeded his grand-Œdipus. father as king of Thebes, and married Jocasta, the daughter of Creon. oracle having said that he would die by his son's hand, he ordered the child to be destroyed. Œdipus was, however, rescued by a shepherd, and lived to slay his father, not knowing who he was. See *Œdipus*, also Sophoeles' *Œdipus Tyrannus*.

Lai-yang, a city in the prov. of Shan-tung, China, 60 m. W.S.W. of Wei-hai-wei. It has manufs. of silk

and a peculiar sort of wax.

(estimated) 50,000.

Lake, a still sheet of water lying in a hollow of the ground and not in direct communication with the sea.

common in lue to various e formed by are found in U.S.A., and

many places where there are dormant volcanoes, while Ls. formed by the subsidence of the roofs of subterranean limestone caves are found among the

movement formation . for such L:

a landslip damming up the course of a river is the cause of such L. basins as the Gohna, formed in the Hima-layas in 1894. In northern latitudes and in the Alps a glacier often forms a dam in a river valley, and the de-posit of glacial drift left by a retreat-Lais, the name of two famous ing glacier is a very common cause courtesans of ancient Greece: I. A of L. formation, especially in N. famous for hose to have

the Ls. of.

Under-

position of the rock. The L. waters Rydal are either fresh or salt. Salt and bitter Ls. abound in regions where there is small rainfall and no draining river. Such Ls. as the Dead Sea and Great Salt L. are descended from fresh water Ls. only becoming saline when the rate of evaporation exceeded the rate of the inflow. The Caspian and Ural seas are really only isolated portions of the ocean. When the rate of inflow exceeds that of evaporation the L. grows gradually fresher. See F. A. Forel, Handbuch der Seenkunde, 1901. For movements of L. water see Seiches, and for the forms and biology of freshwater Ls. see Geographical Dis-

TRIBUTION. Lake, Rev. Kirsopp (b. 1872), a professor of Early Christian literature and N.T. exegesis in the University of Leyden, born at Southampton, and educated at St. Paul's School and Lincoln College, Oxford. He was curate at the Church of St. Mary the curate at the Church of St. Mary the Virgin, Oxford, 1897-1904; cataloguer of Greek MSS. in Bodley's Library, 1903-4; professor of theology at Leyden, 1904. Among his publications are: The Text of the New Testament, 1900; Texts from Mount Athos, 1902; The Historical Evidence for the Resurrection of Jesus Christ, 1907; The Early Days of Mountstiers on Mount Athos, 1909: Monasticism on Mount Athos, 1909; The Codex Sinaiticus, 1910.

Lake Charles, a city, par. of Calcasicu, Louisiana, U.S.A., 190 m. W. of New Orleans. It is the centre W. of New Orleans. It is the centre of a big lumber trade and rice-pro-ducing district, and has rice mills, car shops, and a large woellen industry. There are sulphur mines and oil fields in the neighbourhood.

Pop. (1910) 11,449.

Lake City: 1. A tn. and co. scat of Columbia co., Florida, U.S.A., 59 m. W. of Jacksonville. Vegetables and fruits are grown, and cotton and tobacco produced in the neighbourhood. The town has some trade in lumber phoenheads and transaction. lumber, phosphates, and turpentine.
Pop. (1910) 5032. 2. A tn. of Washasha co., Minnesota, U.S.A., 58 m.
S.E. of St. Paul. There are flour mills and carriage factories. Pop. (1910) 3128.

Lake District, The, in England, lies in Cumberland, Westmorland, and the Furness district of Lancashire, and embraces all the principal English lakes, although its area is only about 700 sq. m. The scenery and character of the lakes is very varied, ranging from wild mistrason. ranging from wild, picturesque rocky preciplees to flat or softly sloping wooded banks. Windermere, the largest of the lakes (101 m. by 1 m.), lies in the S.E. corner of the district and is connected with

Rydal Water, Grasmere, Elther Water, and Esthwaite. To the W. rises the Scafell range, terminating in the Old Man of Coniston, which rises above Coniston Water, and to the E. of the Scafell range lies Wastwater (3 m. long), the deepest of all the lakes. In the N.E. is Ullswater, with the sequestered Hawes Water to the S.E. To the W. of Helperis With S.E. To the W. of Helvellyn is Thirmere, which is the reservoir for the water supply of Manchester, dammed in 1890-94. The R. Derwent, rising in the Scafell range, flows N. through Borrowdale and forms Bassenthwaite and Derwentwater, the most beautiful of the lakes. Westwards from Borrowdale opens a valley in which lie Buttermere and Crummock Water, and between these and the Derwent valley is Ennerdale Water. There are several waterfalls, the chief, perhaps, being Lodore, near Derwentwater. Near Derwentwater lies Keswick, the chief town of the district, while Ambleside and Bowness (Winder-mero) and Hawkshead (Esthwate) mere) and Hawksnead (Estimatice) are other places of importance. See Wordsworth's Descriptions of the Scenery of the English Lokes, 1823; W. Knight, Through the Wordsworth Country, 1890; Bradley, The Lake District, 1901; Collingwood, The Lake Country, 1902; and Rawnsley's Round the Lake Country, 1909.

Lake Dwellings, houses built on platforms supported by piles.

PILE DWELLINGS.

Lake Geneva, see GENEVA. Lake of the Thousand Islands, an extension in the upper reaches of the St. Lawrence R., Canada, near Lake Ontario, enclosing the group of rocky islets known as the Thousand known Islands.

Islands.'
Lake of the Woods, a large irregular lake in the S.W. of Ontario, Canada, touching Manitoba on the W. and Minnesota, U.S.A., on the S. Its length is 70 m., breadth 10 to 50 m., circumference 300 m., and area 1500 sq. m. It is fed by the Rainy R. and discharges, through the Winnipeg R., into Lake Winnipeg. Lakes (dry powder colours). see

Lakes (dry powder colours), see PIGMENTS.

Lake School of Poets, the name given to a group of poets of whom Wordsworth was the acknowledged head and founder, and so called because his home for sixty years was in the Lake District. Southey, Samuel Taylor Coleridge, and De Quincey were the chief of the group, and Shelley, Scott, Carlyle, Mrs. Hemans, Matthew Arnold, Edward Fitz-Matthew Arnold, Edward Fitz-gerald, Tennyson, Gray, and Charles Lamb, although not directly asso-ciated with the school, were con-nected with the district.

Lakewood, a small tn of Ohio. U.S.A., in Cuyahoga co., 7 m. S.W. of contains beautiful Jain and Hindu

Lakhimpur, a dist. in the Brahma-putra valley in Assam, India. It is a prosperous tea-growing centre, with tea-gardens and coal mines worked by the Assam Railways and Trading Company. There are large oil wells at Digboi, and the oil is refined at Margherita into kerosene and paraffin. There are also brick and pipe manufactures and extensive timber cutting. In 1838 the district was taken under British administration and the headquarters established Area 3724 sq. m. at Dibrugarh. Pop. 400,000.

Lakshmi, in Hindu mythology, the goddess of fortune, and the wife of Vishnu represents his creative energy. The festival of L. is celebrated by the writer caste in Bengal, who, in her honour, purify all writing materials and abstain from using them during

the feast.

Lalande, Joseph Jerôme Lefrançais de (1732-1807), a French astronomer, born at Bourg (dept. Ain). After qualifying as an advocate, he was sent to Berlin in 1752 to make observations on the lunar parallax there, and on the successful completion of his task was appointed of Paris. In 1762 he succeeded Delisle as professor of astronomy in the Collège de France, which he re-tained until 1807. In 1802 he in-stituted the Lalande prize for the chief astronomical performance of each year. Among his publications are: Traité d'astronomie, 1762: His-toire Céleste Française, 1801, con-taining his observations of 50,000 stars; and Bibliographie astronomique, 1803.

Lalin: 1. A tn. in the prov. of Pontevedra, N.W. Spain. It is the centre of a highland agricultural district, and has tanneries and paper mills. Pop. 18,000. 2. A walled to. In the prov. of Kirin, Manchuria, 120 m. N. of Kirin. Pop. 20,000.

Lalita-Vistara, one of the most cele-brated works in the literature of Buddhism, being an account of the life and doctrines of the Buddha, partly in prose and partly in verse, and dating, probably, from about the time of Christ. A Tibetan version has been translated into French by P. E. Foucaux, and there is an English the Bengal

Burnouf's Indu Buddhisme

Indien, 1844.

Cleveland, with a wine industry, temples, and its chiefs were prominent in the Indian Mutiny. There is a Lakhimpur, a dist. in the Brahmatrade in oil-seeds, hides, etc. Pop.

11,500.

Lally-Tollendal, Thomas Arthur, Comte de (1702-66), a French general born at Romans, Dauphine. He in-herited his title from his mother, his father being an Irish Jacobite, Sir Gerard O'Lally. He entered the French army in 1721, served in the war against Austria (1734), and took part in the battles of Dettingen (1743) and Fontency (1745). He accompanied Prince Charles Edward Stuart to Scotland in 1745, and was present at the battle of Falkirk. When war was declared between France and England (1736) L. was sent as commander of the French expedition to India. At first he met with some success, but, deserted by the fleet, under Laché, was forced to retire from the siege of Tanjore and of Madras (1758). He was defeated at Wandiwash (1760) and forced to surrender Pondicherry in 1761. As an English prisoner on parole he returned to France, was imprisoned in the Bastille for two years, and finally tried and executed in 1766. See Voltaire's curres com-

pletes, and Hamont's Vie, 1887. Lally-Tollendal, Trophime Gérard, Marquis de (1751-1830), a French politician and author, son of the After his above, born in Paris. After his father's execution he devoted himself to proving his innocence, but without complete success. In 1779 he held the office of grand bailli of Etampes, and in 1789 was deputy to the States. general for the noblesse of Paris. He took part in the early defeat of Louis XVI., but in 1791 retired to Switzerland and later to England. He returned to Paris during the Consulate, and was created a peer by Louis XVIII. In 1816 he became a member of the Academy. He published: Plaidoyer pour Louis XVI. 1793; Défense des Emigrés Français, 1794; and Le Comte de Strafford, 1795.

Lamachus, an Athenian general during the Peloponnesian War, and the son of Xenophanes. He was sent into Sicily with Nicins and Alcibiades, and displayed great courage and ability

was Syract

Aristo tarch's Nikias.

Lamaism (Tibetan Ilama, spiritual teacher), a corrupt form of Buddhism, the religion prevalent in Tibet and Mongolia. Its headquarters are at Lhassa, the capital of Tibet, where the Dalai Lama ('ocean priest' or 'sea Lalitpur, a tn. in the United Pro-Vinces of British India, in the Jhansi Dalai Lama ('occan pricst' or 'sea district. 110 m. S.E. of Gwallor. It of wisdom') resides. The Dalai Lama

is regarded as the incarnation of Cavaliere del (1804-78), an Italian Avalokitesvara, and has supremacy gene in all temporal matters. The Tesho He Lama, or Pantshen Lama, the in- 1823

means of the oracles, prayer, and the drawing of lots. Next in rank to the grand lamas are the Chutuktus, who correspond to the cardinals of the Roman Catholic Church. The Chubil Khans or priests, are also incarna-tions, and have under them four orders of lower clergy. There are orders of lower clergy. There are numerous lamaseries which are the oducational as well as the religious institutions of Tibet. At the head of each is a living Buddha in the person of a Chubil Khan. The worship of Buddha and of spirits and saints takes the form of incantations, and the beating of diverse musical instruments. A person who is dying must be attended by a lama, so that his spirit may not wander restlessly but find a happy dwelling-place in some other human form. See L. A. Waddell, The Buddhism of Tibet, 1895; Köppen, Die Lamaische Hierarchie und Kirche, 1859; and A. H. Francke, History of Western Tibet, 1907.

Lama Miao (Mongolia), see Dolon-Nor.

La Mancha, see MANCHA, LA. Lamarck, Jean Baptiste Pierre Antoine de Monnet, Chevalier de (1744-Antoine do Monnet, Chevalier de (1744-1829), a French naturalist, born at Barentin in Picardy. In 1760 he entered the army and won great dis-tinction, but owing to illness he was obliged to leave the service, and sub-sequently devoted himself to the study of natural science. In 1778 he published his Elere Eronegise. In published his Flore Française. In 1781-82, as tutor of Buffon's son, he visited most of the famous botanical gardens of Europe, and on his return began his elaborate series of contributions to botany, i.e. the Dictionnaire de Botanique and Illustrations de Genres. In 1788 he became custo dian of the Jardin du Roi, and on the reconstruction of that institution in 1893, was appointed professor of zoology. In 1809 he published his Philosophic Zoologique, and between 1815 and 1822 his Histoire des Animaux sans Vertèbres (7 vols.). See Hacckel's Dic Naturanschauung von Darwin, Goethe, und Lamarck, 1882; Lamarck, par un Groupe de Trans-

the

(1848). In 1848 and again from 1849-55 he held the portfolio of war during which period he reconstructed the Sardinian army. In 1855 he was in command of the Sardinian forces during the Crimean War, and on his return again became Minister of War. In 1866 he concluded an alliance with Prussia against Austria, but was defeated by the latter at Custozza, after which he was accused of treason. He wrote in self-defence, Un po più di luce (1873), which irritated Bismarck, who charged him with having revealed state secrets. See G. Massani, Il Generale La Marmora, 1880.

Lamartine, Alphonse Marie Louis de Prat de (1790-1869), a French poet, born at Macon. His father had been imprisoned for his royalist leanings

The success of his Premières Méditations Poétiques (1819) led to his being tions Poétiques (1819) led to his being appointed attaché to the French embassy at Naples, and during the supromacy of the Bourbons he occupied several important diplomatic posts. His Nouvelles Méditations Poétiques (1823), La Mort de Socrat (1823), Le Dernier Chant du Pélerinage de Childe-Harold (1825), and Harmonies poétiques et religieuses (1829), led to his being admitted a member of the Academy (1829). A member of the Academy (1829). A long projected voyage to the East led to the Voyage en Orient, in prose (1835). His Jocelyn (history of a country parson) was published in 1836; La Chute d'un Ange in 1838, and Les Recueillements Pottiques in 1830 but during the project it was as 1839, but during this period it was as an orator, not as a poet, that he enjoyed the greatest popularity. In 1835 he was elected 'député' for Bergues, and from 1837-48 he was 'député' for Mâcon, and at the revolution of Feb. 1848 he was considered 'the man of France,' as the deforder of the 'tricaler' englist' the defender of the 'tricolor 'against the 'rouges.' In the provisionary government he wished to play the role of a Moderate, and lost his popularity, securing very few votes in his candidature for the presidency of the republic. After the coup d'état of Dec. 1848, he retired permanently from public life. In his retirement he wrote a series of novels, Raphael (1849). Les Confidences (1849). Les Nouvelles Confidences (1851), and Graziella (1852). Under the empire formistes, ses Disciples, 1887; Perfer's Graziella (1852). Under the emptre Lamarck et la Transformisme Actuel, he fell into great poverty and wrote 1893; and Packard's Lamarck, 1902. such prose works as Cours familier La Marmora, Alionso Ferrero, de littérature (1856), and inferior

poetry, Les Visions (1854), to support, and Old Blind Margaret (1798). Soon In 1868 he was voted a pension of 500,000 francs by the government, but his privations had worn him out, and he did not long enjoy it. In addition to the works already mentioned he wrote: Histoire des Girondins (1847), Histoire de la Révolution de 1848 (1849),nevolution de 1848 (1849), Trois Mois au Pouvoir (1848), Geneviève (1850), Le Tailleur de Pierres de Saint-Point (1851), Histoire de la Restauration (1851-52), Histoire des Constituants (1854), Histoire de la Turquie (1855), Histoire de la Russie (1856), all in prose, and the tragedy Louverture (1856). Toussaint Œuvres Complètes were published by Didot in 14 vols. (1849-50). See Falconnet's Alphonse de Lamartine, 1840; Lurine's Histoire Poétique et Politique de Alphonse de Lamartine, 1848; Sainte-Beuve's Portraits Contemporains

i. and iv.: Lamartine.

Domville's Life of Lamartine, 1884; Lady Domville's Life of Lamartine, 1893.

Lamb, Charles (1775–1834), an essayist, born on Feb. 10, in Crown

Office Row in the Temple, London, and was educated at Christ's Hospital. The best record of his schooldays will be found in his own essays. On Christ's Hospital and the Character of Christ's

> irs Ago. ie made

acquaintance, which ripened

where he was employed for thirty years. Hissalary was small, and he had to contribute to the maintenance of his family, with whom he lived, but he seems to have been fairly contented. The serenity of his mind was, however, rudely disturbed in 1796, when his sister, the poor half-mad Mary, in a fit of uncovernable temper, killed her problem with a carrier line. A version of temperary lines have been of temperary lines have was brought in, and, by the exercise of many lines have the fit of the fit was brought in and by the exercise of many lines have the fit of the fit much kindly influence, the girl was not sent to an asylum, but was mercifully handed over to the custody of her brother Charles, who lived with her for the whole of his life. Insanity was in the blood of the family, for in the winter of 1795-96 L. himself was confined for six weeks. The first ap- small won
pearance of L. in print was in the of him as
latter year, when Coleridge, in the charm is undoubted, and he numbered
Poems on Va. Poems on Va

L. began to augment his income by contributing to the periodicals and newspapers, and in 1802 he printed his blank-verse play, John Woodvil, a tragedy. He was now living with his sister in King's Bench Walk, and there, and afterwards in Inner Temple Lane, they resided for eighteen years. In 1805 his farce, Mr H., was produced, and damned, at Drury Lane; and two years later Godwin brought out the famous Tales from Shakespeare, written by L. and his sister, which work was at once successful, and brought in its train many wellrelished offers of hack-work. gradually began to develop the vein that reached its greatest heights in the Essays of Elia, and he wrote in this style for Leigh Hunt's Reflector, and for the Gen"

new periodical, was brought ou

an early contributor, his first paper, 'Recollections of the South Sea House,' being signed 'Elia.' He wrote for The London Magazine regularly, and in 1823 collected these essays. In March 1825 he was retired with a pension from the India House on the grounds of ill-health. 'After thirty-three years' slavery,' he wrote to Wordsworth, 'here am I, a freed man, with £441 a year for the remainder of my life.' He did various miscellaneous work during the next years. In 1830 appeared Album Verses, in the following year, Satan in Search of a Wife, and in 1833, The Last Essays of Elia. His health now failed, crysipelaintervened, and he died on Dec. 27. He was buried in Edmonton churchyard. The essays of L., and it is by his essays that he takes the high place in literature that is his, are universally read and admired. Their humour, their literary finish which never suggests the burning of midnight oil, their individuality, each and all endear them to countless thousands, for if L. is one of those writers who peculiarly appeals to his brother-authors, he is one of those writers who appeals also to the larger public, a combination rare among essayists. In all his best writings his personality can be detected, and his personality is very attractive. The hard-working clerk who devoted his life to the care of his half-mad sister is one of the most pathetic pictures in the annal

four of his men so various as Wordsworth, issued Blank men so various as Wordsworth, issued Blank Loyd. His next publica-Leigh Hunt, and Proctor. Indeed, to tion was A Tale of Resamina Gray know him was to love him, and the

circle of those who delighted in him he founded a hospital for the poor was bounded only by the limits of his in 1574. His best-known book, A was bounded only by the limits of his gregariousness. The most human of gregariousness. men, he was a looker-on at the life that was everywhere around him. He was in the world, but never quite of it. He was always detached from reality, and had a curious rich vein of phantasy, that often revealed itself in his writings. His delightful, In his writings. His delightful, intimate Correspondence was edited by Canon Ainger in 1883-88, and a more complete edition was brought out by E. V. Lucas, 1903-05. The standard biography is by Lucas, 1905

Lamb, Mary Anne (1764-1847), an author, was the sister of Charles L., the essayist, whose sonior she was by

the essayist, whose senior she was by eleven years. Mentally unbalanced, she first gave signs of her desperate condition when in 1796, in a fit of fury, she mortally wounded her mother by stabbing her with a knife. She was tried, and a verdict of temporary insanity was brought in; but instead of being consigned to an asylum, she was so fortunate as to be handed over to the custody of her brother, who took charge of her so long as he lived. They stayed always together, went about together, and were devoted to each other, Charles Lamb, if sometimes he found the task of looking after her irksome, never repining. In 1807 she assisted him in the preparation of the Tales from Shakespeare, and while he wrote about the tragedies, she dealt with the comedies. She helped her brother to educate his ward, Emma Isola, who made her home with them until 1833, when she married Edward Moxon. the publisher. Mary L. survived her brother about thirteen years, and died in St. John's Wood. London, on May 20. There is a biography by May 20. The Mrs. Gilchrist.

William (1779-1848), sec Lamb,

MELBOURNE.

Lamballe, Marie Thérèse Louise, Princess de (1749-92), a daughter of the Prince of Carignan, born at Turin. In 1767, she married Stanislaus, Prince of Lamballe, who died the next year. She was the devoted companion of Marie Antoinette, and was ap-pointed by her superintendent of the royal household. Refusing a means of escape, she was imprisoned with her mistress in the Temple for a week, then removed to La Force, and beheaded, and her head, on a pike, was placed in front of the queen's apartments.

Lambarde, William (1536-1601), a British jurist and antiquary, born in London. In 1556 he was admitted into the Society of Lincoln's Inn, and

m 1012. His dest-known book, A Perambulation of Kent, was published in 1576. In 1578 he became a bencher of Lincoln's line and in 1570 a magic trate c

the du

(1581). In 1600 he became keeper of the Tower records.

Lambayeque: 1. A dept. of N.W. Peru, has an area of 4614 sq. m. It is very dry, and a large portion is desert waste. Cap. Chiclayo. Pop. 124,091. 2. Atn. in the above dept., 7m. from the mouth of Lambayeque R. It contains a fine cathedral and college. The chief manufs. are textiles and soap; quinine is also exported. Pop. 60,000.

Lambert, John (1619-94), an English general, born at Calton Hall, Kirkby Malham, Yorkshire. At the outbreak of the Civil War he joined the army of the Parliament, took part in the battles of Nantwich and Bradford, and greatly distinguished him-self at Marston Moor (1644). In 1647 he was appointed major-general of the Northern forces, and in 1648 was in command of Cromwell's army in Scotland. He fought at Preston and Dunbar, and commanded the right wing at Worcester (1651). He opposed Cromwell's assumption of supreme power, and retired to his villa at Wimbledon during the Protectorate. Under Richard Cromwell he was a member of the 'Committee of Safety.' At the Restoration he was arrested and banished to Guernsey. See 'Life' in Whitaker's History of Craven, ed. by Morant, 1878.

Lambessa, or Lambèse, a tn. of Algeria, in the prov. of Constantine, is 5 m. S.E. of Batna. It contains the ruins of an c

the capital. portance in

ruins were discovered by De la Mare. Lambeth, a metropolitan bor. of London, co. Surrey, on the S. bank of the Thames, opposite Westminster. Lambeth Palace, the official metro-politan residence of the Archbishop of Canterbury since 1197, has a fine portrait gallery and a valuable library. The gardens are now open to the public. Since 1885 L. has returned four members to parliament. (1911) 298,126.

Lambeth Conferences, assemblies of Anglican bishops of the United Kingdom, the British colonies, and America, held periodically at Lam-beth Palace. The idea was suggested by Bishop Hopkins of Vermont in 1851. The first assembly met at the invitation of Archbishop Longley in 1867. Out of 144 bishops of the in 1568 he published a collection and translation of Saxon laws. In 1570 the conference, Many Anglican he was living near Greenwich, where hishops, including the Archbishop of Anglican Communion, 76 attended the conference, Many Anglican

clined to allow the closing service of the conference to be held in West-minster Abbey. Since then the value of the conferences has been fully recognised. At the fifth conference, convened by Archbishop Davidson, 241 bishops were present. Matters of urgent and practical interest are discussed, but the conference has not the functions of a synod. See Archbishop R. T. Davidson's The Lambeth Conferences of 1867, 1878, and 1888, 1896; and Conference of Bishops of the

1896; and Conference of Bishops of the Anglican Communion, Encyclical Letter, etc., 1897 and 1908.

Lamb's Lettuce, see Corn Salad And Lamb's Lettuce, see Corn Salad And Lambis Hertroce.

Lambton, Sir Hedworth (b. 1856), a British admiral, the third son of the second Earl of Durham. He entered the navy in 1870, was present at the hombardment of Alexandria and the battle of Tcl-el-Kebir (1882). From 1894-97 he was private secretary to the first Lord of the Admiralty, successively Earl Spencer and Lord Goschen. He commanded the naval Goschen. He commanded the naval brigade in the defence of Ladysmith brigade in the defence of Ladysmith during the Boer War. He contested Newcastle in the Liberal interest in 1900, was in command of the royal yacht (1901-3), was second in command of the Channel fleet (1903), and rear admiral of the cruiser division of the Mediterranean fleet (1904-6). He was knighted in 1908 and appointed to the command of the China pointed to the command of the China station in that year. In 1911 he became vice-admiral, and was appointed commander-in-chief at Portsmouth in 1912. In 1911 he assumed the name of Meux. See MEUX.

Lameness may be due to some deformity of the leg, or to some disease of the structures of the leg. The commonest deformity of the leg which causes L. is the shortening that is likely to follow a fracture. Very many ingenious forms of exten-sion apparatus have been invented to overcome the tendency to shortening. There are also various forms of conrnere are also various forms of con-genital deformities, such as club-foot, which cause L. In young people disease of the joints causing L. is either tuberculous or acute rheu-matoid arthritis. In tuberculous matoid arthritis. In tuberculous joints there is nearly always permanent L., for the spontaneous cure of the disease is often bony union in the joint, so that no movement is possible in that joint. The commonest example is hip-disease. In older people L. is often due to the various forms of chronic arthritis, and when the disease degenerative changes in the

York, refused to attend on conscient often a deliberate gait adopted to tious grounds, and Dean Stanley devoid pain to some injured part. This

Lamentations

often a deliberate gait adopted to avoid pain to some injured part. This group of limps includes all the minor and transient forms of L.

Lamennais, Hugues Félicité Robert de (1782-1854), a French abbé and philosophical writer, born at St.

Malo, Brittany. His horror at the Revolution was occasioned less by his morrorabic leanings than by his his monarchic leanings than by his dismay at the overthrow of religion. and is expressed in his Réflexions sur l'élat de l'église en France pendant le 18ième siècle et sur sa situation actuelle, published anonymously in 1808. At the commencement of the 'Hundred the commencement of the 'Hundred Days' he fled to London, where he fell under the influence of the Abbé Carron, who induced him to be ordained priest on his return to Paris. The first volume of his great work, Essai sur l'indifférence en matière de religion (1817), stirred all Europe in its violent depuniation of religions. its violent denunciation of religious toleration. After the revolution of 1830 he founded, in conjunction with Montalembert and Lacordaire, the paper L'Avenir, with its motto 'Dieu et Liberté,' advocating an aggressive democracy. His appeal aggressive democracy. His appeal to the pope to support the paper against the Conservative bishops failed, and L. completely severed himself from the Church. His remarkable Paroles d'un croyant (1834) marked his marked his . forward he Democratic

opinions wh held. At the revolution of 1848 he held. sat as a representative on the extreme Left in the Assembly, until the coup d'état of Napoleon III. in 1851 finally crushed his hopes for the sovereignty crusned his hopes for the sovereignty of the people. Among his later writings were: Le Lirre du Peuple, 1837; De l'Esclavage Moderne, 1839; Politique à l'Usage du Peuple, 1839; Le Pays et le Gouvernement, 1840; Une Voix de Prison, 1840; Le Deuil de la Pologne, 1846; and his translation of Les Evancies. Les Evangiles, 1846, and Dante's La Divine Comédie. Two so-called La Divine Comédie. Two so-called Œuvres complètes de Lamennais appeared in 1836 and 1844. See Sainte Beuve's Portraits Contemporains, 1846 : A. Blaize's Essai Biographique, 1840 : Mercier's Lamennais, 1894 :

Boutard's Lamennais, 1995.
Lamentations, The Book of, called in the Hebrew Blbles' Echah, from its first word, belongs to the group known as the Megilloth. It consists of five poetical laments dealing with the various calamities which the various forms of chronic arthritis, and Judalites underwent after the capulso to degenerative changes in the joints. Nervous disease may produce complete paralysis, or every degree alphabetical acrostics, containing of disturbance of the gait. A limp is each twenty-two verses. The fourth The fourth

is constructed on the same plan, but a special formation in the beds of in this case the verses are arranged in clay or shale strata, in which the bed groups of three, each having the same is formed of thin layers or plates, initial letter. There are thus sixty-called lamie, lying parallel to its six verses in all. The fifth lament, plane and separating easily when which takes the form of a prayer to Yahweh, is not acrostic, but contains the same number of verses as each of the first three. Late tradition ascribes the authorship of Lamentations to

the prophet Jeremiah. Lamettrie, Julien Offray de (1709-51), a French philosopher and physiborn at St. Malo. Abandoning theology for medicine, he was appointed surgeon in the French army (1742), but his materialistic study. Histoire naturelle de Vâme (1745), obliged him to seek refuge in Leyden, and later he settled in Berlin. He worked out his ideas more completely in L'Homme machine, and L'Homme plante (1748). In La Volupté and L'Art de jouir he main-tained that the end of life can only be found by indulgence of the senses. Frederick the Great wrote a memoir, which is prefixed to the edition of 1774. See Lange's Geschichte des Materialismus (Eng. trans.), 1880, and the Life by Poritzky, 1900. Lamia, in Greek mythology, a

female phantom. Legend said that she was a queen of Libya beloved by Zeus, whose jealous wife, Hera, robbed L. of her children, in revenge for which the Libyan queen seized and killed every child she could find. In later Greek legend she was regarded as a female boger, and so passed into Roman mythology where the Lamice were represented as demons in the form of beautiful women who enticed young men to their arms in order to feed on their blood. In this form L. is represented by Goethe in Die Braut von Corinth, and by Keats in Lamia. See Diodorus; Plutarch, De Curiosis; Lawson, Modern Greek Folklore and Ancient Greek 1910; Abbott, Macedonia 1903.

Lamia, or Zeitun, a tn. and cap. of Phthiotis, Greece, on the Gulf of Lamia. It is fortified and is also a bishop's see. The inhabitants are bishop's sec. chiefly employed in rearing camels. Pop. 7500.

Lamia, L. Ælius (d. 33 A.D.), a Roman magistrate, being consul in 3 A.D. and prefect of Rome in 32 A.D. He was a friend of Horace who dedicated an ode to him (i. 26). See W. Verrall's Studies in Horacc,

Lamigo (ancient Lama), a tn. in Beira, Portugal, 46 m. E. of Oporto. It contains Moorish remains and has cathedral and bishop's palace. Pop. 11,500.

Lamination, a term in geology for of 34,674 stars (1866-74).

exposed to the weather. They may be the result of separate layers of deposit being placed one on top of the other in successive periods, or they may be due to the pressure of the later deposits. See CLEAVAGE.

Lamium, the chief genus of Labiatre,

consists of about fifty species of Old World plants. Five of these are British, e.g. L. album, the white deadmetic, which was formerly used medicinally; L. amplexicaule, the henbit, found in chalky and sandy soils; L. purpureum, the purple dead-nettle, which is also a native of

Sweden. Lammas Day, or The Feast of the Wheat Harvest, one of the oldest of church festivals, occurring on Aug. 1. The name is probably derived from the Anglo-Saxon hlafmaesse, or 'loat mass': it was customary to offer mass'; it was customary loaves of bread made from the fresh wheat.

Lammas Lands, lands which were enclosed during the growth of corn and grass, but open for pasture lands during the rest of the year. Upon Lammas Day (Aug. 12) the fences were taken down from the corn fields and on Old Midsummer Day (July 6) from grass fields.

Lammermoors, or Lammermuir Hills, a range of hills in Haddington and Berwickshire, Scotland, which extend in an E.N.E. direction from the vale of Gala Water to St. Abb's Head on the North Sea. The chief summit. Lammer Law, reaches a height of 1733 ft.

Lamont, Johann von (1805-79), a Scottish-German astronomer and magnetician, born at Braemar, Aberdeenshire. He was sent to be edu-Scottish monastery in and never returned to 1827 he was sent to the

observatory at Bogenhausen, near Munich, J. Soldi establish there in hensive France, mark which were published in three volumes (1851-59). He announced the discovery of a marnetic decennial period in 1850, and his discovery of earth currents in 1862, of which his Handbuch des Erdmagnetismus (1849) is the standard text-book. He was appointed professor of astronomy at the University of Munich in 1852, and

prepared his eleven zone catalogues

Juchault de (1806-65), a French general and politician, bornat Nantes. He entered the Engineers in 1828, and served through the Algerian campaigns from 1830-47, becoming maréchal-de-camp in 1840. He dis-tinguished himself at Isly (1844), and effected the capture of Abd-el-Kader in 1847. He took part in the political events of 1848, and was Minister of War under Cavaignac. L. was a leading opponent of Louis Napoleon, who exiled him in 1851. In 1860 he accepted the command of the Papal army, but was completely defeated by the Italians at Castelfidardo. His sentence of exile was revoked in 1857. and he died in retirement near Amiens. See E. Keller, Le Général de Lamori-cière, 1873, and Flornoy's Lamoricière, 1903.

La Motte, Antoine Houdar de (1672-1731), a French poet and dramatist, born in Paris. His first comedy, Les Originaux (1693) was a failure, and he contemplated entering a monastery, but the success of his ballet, L'Europe Galante (1697), led to a series of successful operas and tragedies, of which cessful operas and trageures of value the most famous is Ines de Castro (1723). Other works are a verse trans-lation of the Riad (1714), founded on Madame Dacier's translation, 1699; Réflexions sur la Critique, 1715; Réflexions sur la Critique, 1715; Fables, 1719; Odes, 1707. His Œuvres (10 vols.) appeared in 1754. P. Dupont, Un Poete Philosophe, 18 La Motte Fouqué, sec FOUQI . FRIEDRICH HEINRICH KARL DE

MOTTE. Lamoureux, Charles (1834-99), French violinist and conductor, born at Bordeaux. He became first conductor of the Opera at Paris (1878), and introduced the work of Wagner and other modern composers to that city. In 1881 he inaugurated the Nouveaux Concerts, better known as Concerts Lamoureux, in continuation of the work begun by Colonne.
Lamouroux, Jean Vincent

Lamouroux, Jean Vincent Felix (1779-1825), a French naturalist, born Felix i

obtained by the incomplete com- as a palatable article of food. bustion of carbonaceous compounds. Lamps have from early times been the finest L. being obtained in the used for illumination indoors, just as distillation of coal-tar. It is used torches and lanterns were used in the mainly in the manufacture of print-ing-ink and as a pigment for oilpainting.

Lampedusa, an island in the Medi- Adumeir, to shine. terranean

Lamoricière, Christophe Léon Louis, Malta and the African coast, and bélonging to the prov. of Girgenti, Itals. It is 7 m. long, and 2 m. wide, with an area of 111 sq. m. It has a good hirbour for small boats and torpedces. An Italian penal colony is here. Fop. 2000.

Lampeter, or Lampeter Pont Stephen. a municipal bor, and assize tn. of Cardiganshire, Wales, situated on the R. Teifi. The name 'Pont Stephen' is derived from an ancient stone bridge over the river, which was conconstructed for King Stephen. St. David's College (1822-27) is a university affiliated to the universities of Oxford and Cambridge. Pop. 2500.

Lamport and Holt Line, a steamship line founded in 1865. It is one of the largest lines in the world, the company owning forty-six vessels with a gross tonnage of 309,382 tons. The head office is at Liverpool, and the steamers ply between the chief ports of England, including London, and those of S. America; but New York is also visited. The boats are fitted up to carry passengers, but they are mainly used for the transport of cattle and cargo. The *Vauban*, built in 1912, with a gross tonnage of 10,421 tons, a speed of 15 knots, and dimensions 495 by 60 by 28 ft., is the largest.

Lamprey, or Peiromyzon, an animal which is often regarded as a fish, but See which in fact differs from the true baired fins,

ince of the ction, and as well as

several marked internal differences. The L. and the hag (q.v.), to which it is closely allied, are in consequence placed in a class by themselves, known, on account of their round mouths, as Cyclostomata. There are three British species, the sea L. (Petromyzon marinus), a mottled greenish brown in colour, and over 3 ft. long; the river L., or more often lampern, of two varieties (P. fluviatilis and P. planeri) much smaller. All the All the at Agen in Guienne. In 1809 he was appointed to the professorship of and cel-like forms with seven pairs natural history at Caen, where he of gill-pockets connected internally wrote his Histoire des Polypiers by a tube and a piston-like tongue. Coralligènes flexibles, published in They feed on small animals and the 1809. His works include a Dictionary dead bodies of larger ones, but will of Zoophytes, 1824. varieties are alike in their slimy skins and feed themselves by scraping holes Lampblack, a black pigment con- and feed themselves by scraping holes sisting of finely-divided carbon, and in the skin. They were long regarded

> torenes and innerns were used in the streets. The word 'lamp' is derived from the Greek $\lambda a \mu \pi a s$, a torch, which, in its turn, is connected with Among civilised Sea, situated between nations gas and electricity are fast

are no longer an essential feature of People, moredomestic furniture. over, do not now lavish artistic workmanship on household utensils in daily use. This article, therefore, will be devoted to Greek and Roman L., which are of interest as works of art

besides as antiquities. A very primitive bronze L., found at Enkomi in Cyprus and belonging to the prehistoric age known as the Mycenean, would seem to refute Atheneus' assertion that λύχνοι (lamps) were a comparatively recent invention. Yet they did not come into common use till the 4th century B.C., and undoubtedly most of the specimens, which have come down to us, belong to the Græco-Roman period.
The L. supplied to the humbler
citizens were made of clay or terracotta. Bronze was used for better
class of work. Excavations in class of work. Excavations in Pozzuoli, Roman sarcophagi, and in Roman settlements of Britain, have yielded L. of bright green enamel, many of them iridescent, whilst one of yellow enamel was found at Cyprus. The L. wrought about 400 B.C. by the sculptor, Callimachus, for the Erechtheum of Athens was of gold. But this was clearly exceptional, as much for the metal as for the beauty of its design. In size there is considerable variation. Thus the L. preserved in the British Museum vary from 1½ to 11½ in. in height, whilst the length or diameter ranges from 4 to 13½ in. Normally the height is from 3 to 7 in., the length being somewhat more.

It is at least likely that the Greeks borrowed the shape of their L. from the Egyptians, for the L. of Egypt are substantially the E

those of later Hellas. consists of a spheroid body, whose the well for the oil, a spout or nozzle che for the on, a spout or nozzie (κυκτήρ), an opening to receive the wick (θρυαλλίς), and a round hole, through which to pour the oil. The round hole is on the upper surface, surrounded by a cliently consecutive the control of th surrounded by a circular space; opposite the spout, which is a projection from one side of the round body, is the handle, usually ring-shaped so as to receive the forefinger and with a palmette or some other spreading design on top to give support to the thumb. The Greeks also adopted or discovered a beautiful type of pendant L. This was supported by chains fixed at opposite ends of a diameter of the well, which was fashioned like a shallow basin. A small flat stand was usually attached to the base to correspond FASTY FELIX. L., morrover, seem to have played a part in religious cerebra, which were invariably flattened monial. Thus there were bronze L.

replacing oil as a means for lighting, to allow of their being set on a table even in country districts, so that L_1 But the above are only types, and the few illustrations that have lasted to our day afford ample proof that the Greek craftsmen were far too ingenious and artistic merely to re-produce year in and year out the same patterns. And the same holds good of the Roman artificers, who carried on the traditions of their pre-Sometimes the nozzles decessors. were multiplied to two, seven, or even sixteen, and were skilfully contrived so as to have a place in the general scheme of design. There are L. in existence in the form of a dog curled up, a captured deer, an elephant, a ram's and a greyhound's head, and a snail shell. Others represent the head of Pan, grotesque heads, or the heads of negroes. One is shaped like a fircone, another like a knight on horseback, and a third like Selene with her bull-drawn chariot. All kinds of places are found for the hole leading to the oil well, as, for instance, the top of the figure's head, or the mouth of the cup which some devotee of Bacchus holds before him. A favourite ornament was the figure of a god or ornament was she ngure of a god of goddess, like Zeus or Demeter, or of a mythological hero like Hercules. An exquisite bronze L., found in the Therms of Julian at Paris, gives an excellent idea of the standard of domestic art to which the ancients arrived. It may be seen in the British Museum, but a bare description is Spouts, decorated here appended. underneath with heads of satyrs, project gracefully at either side of the main bowl. Springing out from the bowl in front and behind are vigorously-carved lions. In place of the usual chains are two dolphins, whose heads rest, one on each spout and eet in mid air above the A single chain attached

tails served to suspend the L. A very elaborate and beautiful Etruscan L., believed to date back to the 5th century B.C., was found in 1840 at Cortona. On the under sur-1840 at Cortona. On the under surface is the head of Medusa, whilst the sixteen spouts are decorated alternately with a satyr and a siren, and between them are masks of river gods.

One or two interesting customs, which the old Greeks and Romans observed in connection with Ls., have been handed down to us by Pausanias and others. Men used to honour their dead by placing lighted L. with in-cense on their tombs. A New Year's gift sometimes took the form of a I.. A favourite device for such a present was that of two Victories holding a of Hermes' statue in the market-place of Pharæ in Achaia. Whenever a believer came by night to consult this oracle, the first step in his ritual was to light the L. that he might see the object of his prayer.

L., little different from those described above, are still used in Palestine, Persia, and other coun-tries of the East. In mediæval times cathedrals and castles were often illuminated by highly-decorated hanging L., iron being a favourite material. In the early days of Christendom the monogram of Christ was a common motive for decoration.

Lampsacus, an ancient Greek colony in Mysia, Asia Minor, on the Hellespont and opposite the modern Gallipoli. The modern village of Lapsaki probably stands near its site.

Lamp-Shell, a genus of Brachiopods. Lampyris, see GLOW-WORM.

Lamu: 1. An island off the coast of E. Africa in lat. 2° 15' S., included in the protectorate of British E. Africa. A strait 6\frac{1}{2} m. long and 3 m. broad separates it from the island Manda on the E., a narrower channel separating it from the mainland. Pop. 15,000. 2. A tn. and port opposite Manda, on the eastern shore of the mainland. It is the headquarters of the administration for Wita district, and has steamboat communication with Europe and India. Pop. 8000.

Lanark, a royal, municipal, and police burgh, and co. tn. of Lanarkshire, Scotland, situated on high ground near the r. b. of the Clyde, 31 m. S.E. of Glasgow by rail. It is a famous holiday haunt on account of the Falls of Clyde, and its historical association with William Wallace. The chief industries are

and wincey there are

markets. Pop. (1911) 5900.

Lanark, New, 11 m. S.W. of Lanark, was founded by David Dale and Richard Arkwright in 1785 as a Robert cotton-spinning centre. Owen, the social reformer, was manager of the mill from 1799-1828. Pop. 795.

Lanarkshire, a S.W. inland co. of Scotland, bounded N. by Dumbarton-shire and Stirlingshire. The shire is divided into three words, the Upper, ad includes more

the Middle, and atest elevations

are to be found in the S. Culter Fell (2454 ft.) being the highest on the borders, and in L. itself Green Low-ther (2403 ft.). The valley of the Clyde (Clydesdale) runs through the county, and the surface slopes gradually from the heights in the S. to the

hanging from the marble altar in front of Hermes' statue in the market which the chief are the Medwin, place of Pharse in Achaia. Whenever Mouse, Calder, and Kelvin on the a believer came by night to consult right, and the Douglas, Nethan, and Avon on the left, drains the county. There are a few lochs in the N., but they are unimportant, and the Falls of the Clyde at Bonnington, Corra, Dundoff, and Stonebyres are the most famous features in the scenery. Grain is not grown very largely, oats being the main crop, but cattle and sheep are reared extensively, also pigs, and a fine breed of of draught horses known as Clydesdales. Dairy farming is productive, especially certain kinds of cheese, and fruit-farming is carried on in the Clyde valley, strawberries being grown in great quantities. In the N. market-gardening flourishes, a considerable amount of glass being in use. The main industries are the coal and iron fields, of which Glasgow forms the centre; shipbuilding at Glasgow, Govan, and Partick; cotton, Glasgow, Govan, and Partick; cotton, woollen, and linen manufacture at Glasgow, Rutherglen, Hamilton, Lanark, etc.; engineering at Coatbridge, Kinning Park, Wishaw, etc. The canals include the Monkland Canal in the N., and the Forth and Clyde Canal in the N. and N.W. Ciyue Canai in the N. and N.W. The county is divided into six par-liamentary divisions, each returning one member, and there are three royal burghs, Glasgow, Lanark, and Rutherglen. The county has been the scene of some stirring historical events, Wallace being one of its chief heroes, while Mary Queen of Scots was defeated at Langside in 1568, and Claverhousewas defeated at Drumclog in 1679 by the Covenanters, who in their turn were defeated at Bothwell
he same year; it also contains
others the castles of Both-

others the castles of Both-nd Douglas. The area is 879 sq. m. Pop. 1,447,113 - the most populous county in Scotland. See C. V. Irving and A. Murray, The Upper Ward of Lanarkshire (Glasgow, 1864), and W. A. Cowan, History of Lanark (Glasgow, 1893).

Lancashire, a maritime co. in the N.W. of England, bordering on the Irish Sca. The coast-line, though flat, with fine stretches of sand, is flat, with one stretches of sand, is broken by inlets, of which the largest are Morecambe Bay and the estuaries of the three rivers, the Duddon, the Ribble, and the Mersey. Morecambe Bay also divides the district of Furness with the Island of Walney from the rest of the county. There are many popular seaside resorts on this coast, popular seasure resorts on this coast, the chief of which are Blackpool and Southport. The most important rivers are the Mersey, into which flow the Irwell and Sankoy, and the Bibble are the Mersey. Firth of Clyde in the N.; the Clyde Ribble, rising in Yorkshire and flowing down to Preston, into which flow 1887 so m Pon (1911) 1 295 720 See the Hodder, Calder, and Darwen. V the Hodder, Calder, and Darwen.

The surface of the county is varied, lar
the N. being hilly, except near the
coast, and including part of the beautiful Lake District, Coniston and
part of Windermere being in L. The
amalgamation of a number of local
three in Lancabire and the W. Riding E. boundary is also hilly, taking in part of what is known as the Pennine uplands, the highest point being Blackstone Edge (1323 ft.). In the S. there are some beautiful stretches of moorland, and along the coast and the R. Mersey there is a plain, once peat mosses, but now partly reclaimed; the largest of these is Chat Moss (q.v.), between Liverpool and Manchester. L. contains one of the largest of England's coalfields, and in its area are included all the big cotton manufacturing towns, Manchester, Burnley, Blackburn, Wigan, Bolton, Preston, etc. Fire clay, sandstone, limestone, slate, particularly a fine blue slate, and salt are quarried, the latter being also found in the brine. In Furness red hematitic iron is found. Cattle are regard in consistency. is found. Cattle are reared in considerable numbers, cows being kept to supply the large demand for milk, and the hill pasturage is good for sheep; oats and wheat are the chief crops. L. is the centre of the cotton trade for the world and come age 400.000 trade for the world, and over 400,000 hands are employed in this manu-facture. The industry dates fr 1641, though it is not until 1. that we find steam first used at mills in Manchester, the centre of the trade, and a rapid development followed. There is a large manufac-ture of all implements and machines used for the weaving; iron and steel are manufactured at Barrow-inmanufactured Furness, there are glass works at St. Helens, watch-making at Preston, and leather works at Warrington. L. contains the great scaport of Liverpool, with its vast shipping trade, and the lesser ports of Manchester, connected with the sea by means of the Manchester Ship Canal (1894), Barrow-in-Furness, and Flectwood, with its The steamship service to Belfast. county is served by the London and North-Western Railway and all the northern trunk lines, besides a number of local lines. The Bridgewater Canal is an important means of communication. The county is one of the counties palatine, and is part of the duchy of Lancaster, the office of Chancellor of the Duchy and County Palatine dating back to 1351. It is divided into six hundreds, and returns twenty-three members to parliament, At different times L. has played an important part in history; it contains some fine ruins and ancient churches, and is famed for the number churches, and is famed for the number

lines in Lancashire and the W. Riding of Yorkshire. The main line extends

from Manchester through Rochdale, and there Halifax, Another

connects

Manchester with Liverpool. South-port, and various towns in the S. of Lancashire. The company also owns steamers which ply between Liver-pool and Drogheda, and Goole or Hull, and Amsterdam and Copen-

hagen.

Lancaster: 1. The cap. of Lancashire. England, on the l. b. of the R. Lune, 7 m. from its mouth, 20 m. N. by W. of Preston. Its first charter was granted by John in 1193. The old castle, of Roman and Saxon origin, which was restored by John of Gaunt, is now used as the county gaol. It manufs, china, machinery, cotton, and silk. Pop. (1911) 41,414. 2. The co. seat of Lancaster co., Pennsylvania, U.S.A., on the Conestoga R., 69 m. W of Philadelphia. It is a busy industrial town, with large tobacco warehouses,

on the Hocking R., 31 m. S.E. of Columbus. It has machine and railway shops, and manufs. of shoes, glass, and agricultural implements. Pop. (1910) 13,093.

a British armoured Lancaster. cruiser of the County class, 9800 tons, 23 knots, launched at Newcastle in

1902.

Lancaster, House and Duchy of. The house of Lancaster originated in the second son of Henry III., Edmund Crouchback, who was created Earl of Lancaster and Leicester in 1267. The duchy of Lancaster was created by royal charter in 1362, when John of Gaunt, who had married Blanche, the sole heircss of the Lancastrian estate, was made Duke of Lancaster, in de-fault of male heirs. Their son, Henry. fault of male heirs. Their son, Henry, seized the throne from Richard, and reigned from 1399 to 1413, and was succeeded by Henry V. (1413-22). During the reign of Henry VI. (1423-61 and 1470-71), the War of the Roses broke out, in which the Lancastrians were opposed by the house of York, descended from Lionel, Duke of Clarence, elder brother of Joins of Gaunt. The duchy of Lancaster was annexed to the crown by Edward IV. in 1461, but up to the present time the in 1461, but up to the present time the of its old county families. The area is revenues are held separately from the

hereditary revenues of the crown. Hassall, and was succeeded as editor Formerly, the Chancery Court of the County Palatine was held at Preston and the Duchy Court at Westminster, but since 1873 the administration of but since 1873 the administration of justice has been assimilated to that of the rest of England. The office of chancellor of the duchy, being a political appointment, is generally held by a member of the cabinet, and the stipend is £2000 per annum. The present chancellor is the Rt. Hon. C. E. Hobhouse, M.P. See Gairdner's The Houses of Lancaster and York, 1886, and Stubbs' Constitutional History (5th ed.) 1895 History (5th ed.), 1895. Lancaster, Sir James (d. 1618), an

English navigator and statesman. first sailed in a disastrous expedition to the East Indies in 1591. Lancaster Sound, a channel 50 m. wide in the Arctic regions, leading from Baffin Bay, between N. Deron and Cockburn Land, and continued W. by Barrow Strait, was named after him by Baffin on account of L.'s voyages in search of the N.W. Passage. See *Voyages of Lancaster*, ed. by Sir Clements Markham for the Haldust Society (1877).

Lance, George (1802-64), an English painter, born at Little Easton, Essex. He studied under Haydon, confining himself to historical art, but discovering where his real bent lay by the copy of a group of fruit merely as a study of colour, he afterwards devoted him-self entirely to still life and fruit studies; several of which are in the National Gallery and Tate Gallery.

Lancelot du Lac, the famous knight of the Round Table, and secret lover of Queen Guinevere. He was the son of King Ban of Benoic and Queen Helaine, who were driven out of their kingdom by Claudas. Lancelot was brought up at the court of a waterfairy, the Lady of the Lake, and when fairy, the Lady of the Lage, the reached years of manhood he offered his services to King Arthur, who made him a knight. His love for Guinevere was disclosed to Arthur by the sons of Lot, and at the end of the ensuing war he retired to a monastery. He was, by Elaine, the father of Sir Galahad. The story of Lancelot belt of the Arthu

of the prose and Dutch trans. by ?" Roman ran Lancelock,

Lancewood, a straight-grained wood of great strength and flexibility. The wood is obtained from two trees be-longing to the order Anonacee, the black L., which is used mainly by coachbuilders for the shafts of traps, being obtained from the Guatteria virgata of Guiana and the West Indies, and the yellow L. (Duquetia quitarensis) also found in Guiana, and used by the Indians for arrow-heads.

Lan-chan-fu, or Lan Tcheu, a tn. of Western China, and the official cap. of the prov. of Kansu, situated on the Yellow River. It is a great trading centre; the chief manuf. is cannon founding, and there is a European factory for the manufacture of coarse materials from sheep's wool and camel's hair. Coal is mined in the vicinity. Pop. 100,000.

Lanchester, a par. and tn. of Durham, England. In the neighbour-hood are remains of a Roman station, and Roman relics have been found. The town, situated near Durham, is industrial, and contains coal mines, steam saw-mills, and timber yards. Pop. (1911) 4600.

Lanciano, a tn. in the prov. of Chieti, Italy, is 13 m. S.E. of Chieti. It is the old Anxanum, and contains Roman remains and a cathedral. manufs, linen and hemp, and trades in country produce. Pop. (com.) in country produce. 18.500.

Lancing College, a boy's public school near Shoreham, Sussex, was founded in 1848 by the Rev. Canon Woodard in connection with an educational scheme in Sussex which embraces the schools of Hurstpierpoint and Ardingley.

Land, as the ultimate source of all wealth, has necessarily, throughout all time, been the most coveted kind of property. It has the characteristic of immovability which no other species of property possesses, and with the guarantee of state protec-

in for all individual rights affords owners an element of security and : rmanence in their proprietary estate

And the more increase the pro-

then existing in the administration appear to have been to those who of hospitals. Wakley was assisted occupied it, more especially seeing by Cobbet, Wardrop, Sir William that in primaval times there was Lawrence, and Dr. Arthur Hill ample for all. A priori reasoning

leads us to infer that in the tribal era of the history of mankind a small population eked out a scanty living from immeasurable tracts of L. The whole history of man is that of the subordination of crude nature to human art, and it is clear from such records as are extant (chiefly Cosar and Tacitus) of the manners of tribal organisations that these quickly learnt the value of such L. as was capable of producing natural food for their subsistence. Even with tribes whose sole occupation was the chase, we see the germ of territorial property in the defence of hard-won L. against hostile aggression by less fortunate adventurers. In the pastoral era that germ tenure of the

more civilised isation of which is to be found even at the present day, especially among Slavonic and Hindu peoples. In general the common field system of cultivation obtained as the most advantageous system of husbandry, i.e. the system by which fields were divided into three narrow strips, owned in severalty but cultivated by

co-operation.

At first both the arable and pasture Ls. remained the joint property of the community, and in an ideal state when those appointed to cultivate the L. or tend the cattle were respectively best fitted for those purposes, and were willing to perform the duties for the general behoof, the need for private ownership was not felt. The clange comes with the apportionment of the arable L. among the households comprising the village, while the pasture, woods, and forests remain common property, though the of profit-principle of joint ownership survives in the system of cultivation of crops tin the system of cultivation of crops tin. Ti by rotation, the Ls. apportioned for L. during culture lying fallow for a succession struggle between feudal overlords and culture lying fallow for a succession struggle between feudal overlords and them to the like the former endeavourof years, other Ls. being assigned by their tenants, the former engeavour-of years, other Ls. being assigned by their tenants, the former engeavour-the tenants of the letter engeavour-This inchoate principle of private reliefs, and other burdens imposed. This inchoate principle of private reliefs, and other burdens imposed property becomes definite as soon as on the tenants by the L laws, the L. is appropriated permanently to separate families, the less fortunate or more idle villagers being relegated to the waste Ls., or forced to labour . for the landowners. From this appro-priation springs all wealth, and the

families, and, indeed, for most of the pretation of words of grant (see De

rest of the L. composing any particular nation to fall into the hands of comparatively few of the people, with the consequence that governmental powers fall naturally to the owners of L., and the very qualifications for office are based upon the possession of a certain amount of L. It is then that legislation becomes necessary to regulate ownership or tenure of L., and whether we are dealing with the agrarian reforms of the Gracchi or the fiscal proposals of Mr. Lloyd George, it is not difficult to appreciate George, it is not difficult to appreciate why laws relating to L. must almost inevitably be at the same time laws that vitally affect the very polity and constitution of the state, and inevitably rouse the angriest passions. It is not, however, to be assumed that the same course of evolution is traceable in the history of the L. of all existing nations, though there may well be certain fundamental similarities in the earliest stages. But unquestionably feudalism lies at the root of L. tenure in most European nations, although in practically every case nothing but faint traces still remain, e.g. in Scotland where the Scots L. law still speaks of feu duties being payable by a rassal to his superior or lord, while in England we still speak of a lord of the manor. (For the relation between the Roman tenure of L. and continental feudalism, see under LAND LAWS.) The break-up of feudalism may be said to have begun from the time knight service became commuted for a money rent, and practically completed when terms of years or leases were granted by landowners; for these were indications of

their tenants, the former endeavour-

into private ense of that tarana much was partly vices of con-

priation springs all wealth, and the very notion of money, which in the Latin word pecunia is cognate with law rules as to tenure, and partly law rules, cattle (see on this Pollock and through allenations in mortmain pecus, cattle (see on this Pollock and through allenations in mortmain pecus, cattle (see on this Pollock and through allenations in mortmain pecus, cattle (see on this Pollock and (q.v.), and the doctrine of uses and down to the 13th Century). The general trusts (see Equity). The idea that down to this course of evolution, to be considered as superior lord on certain loaned of a superior lord on certain cattle in the hands of a few powerful faultles, and, indeed, for most of the

DONIS). The later concession that L. hold Act, 1841, was passed, the tithe might be disposed of by will com- commissioners were entrusted with pleted the conception of a tenure of L. as a species of private property. (As to the effect of marriage settlements. and wills customarily made in the manner of settlements, in keeping estates in the hands of wealthy families, see under LAND LAWS and ENTAIL.)

In France there is a system of petty entails in vogue which, taken with the conformity of landowners to the spirit of the rule of succession of all the issue equally, results in the existence of a great number of private estates of no great size; whereas in England the effect of primogeniture and settlements made conformably to that doctrine is to lead to the aggregation of huge landed estates in

the hands of comparatively few. Both in U.S.A. and Ireland there have been, especially in the late Victorian era and recently (1913), suggestions put forward with a view of remedying the real or supposed evils of private ownership in L. The pro-positions generally urged are: (1) To abolish entails and primogeniture and other legal difficulties in the way of sales. The Land Transfer Act (see LAND LAW) has done something to lessen expense. (2) To legalise and extend tenant-right (see under LAND LAWS). (3) To establish tribunals of arbitration to decide upon appeal as to the rent to be paid (see CROFTERS) and under LAND LAWS as to tenant-right). (4) To have the state buy out the landlords and either sell again to the tenants, or itself remain the land-lord. (As to taxation of L. values as a step to nationalisation of L., the expenses of nationalisation, and the extent to which state ownership and control actually prevail, see under LAND LAWS.)

Bibliography.-Maine, Village Com-

Landau, a tn. in the Rhenish Palatinate, Bavaria, Germany, 17 m. S.W. of Spires. It has ancient his-Rhenish

nded in the de an im-.t played an irty Years' possession d the forti-

fications in 1871. It is a trading foundries, has iron centre.

the duty of administering that Act as well. When later additional duties, relating to the enclosure of commons and land drainage, devolved upon them, they became styled tithe, copyhold, or enclosure commissioners according to the particular functions they happened to be exercising at the moment. On the passing of the Settled Land Act, 1882 (see under LAND LAWS), they received the name of Land Commissioners for England. Finally, in 1889, the commission be-came merged in the Board of Agriculture. See Odger's Local Government.

Land-crab, the popular name given to the species of Gecarcinide, a family of malacostræan crustaceans which only occasionally visit the sea or fresh waters. They have a square. convex carapace and moderately large eyes. The species of Uca are found in the mangrove swamps of S. America, and those of Gecarcinus inhabit the forests of the West Indies.

Landeck, a watering-place of Prussia in Silesia, situated on the Biele, 54 m. S. of Breslau, near the Austrian border. It is noted for its warm sulphur springs, which are visited by about 10,000 people yearly. manuf. of gloves is carried on. Pop. 3337.

Landed Estates Court, an Irish court created in 1858 in succession to the Encumbered Estates Court, for the purpose of deciding questions relating to the investigation of title to land, ascertaining, allowing, and settling the priority of incumbrances and charges on land, and generally declaring the rights of all persons in any land in respect of which application is made to the court. The court has power to invest the proceeds of sale of land for the benefit of parties where the judge thinks that the legal munities; Jenks, History of Politics proceedings are likely to be pro-(Dent & Sons). tracted. Where any money arising

> cretion to order the money to be paid into the Court of Chancery, there to abide the orders of that court. Under the Landlord and Tenant (Ircland) Act, 1870, the L. E. C., on sale of estates, must, so far as consistent with the interests of the persons entitled to the estates or proceeds, afford all reasonable facilities to occupying

centre, has iron foundries, and manufs, machinery. Pop. 17.761.

Landaur, a cantonment and sanatorium in the Dehra Dun dist, of the United Provinces, India, 75 m. E. of Umballa. Alt. 7459 ft. Pop. 4000.

Land Commissioners. On the passing of the Tithe Act, 1836, commissioners were appointed to administer its provisions, and when the Copy- (1829), publishing Clapperton's jour-

nal in 1829, with additions of his own damage done in the course of military as Journal of Richard Lander from Kano to the Coast, followed by ver, under the Records of Captain Clapperton's Last Expedition to Africa (1830). In 1830 L. was sent, with his brother John (1807-39), by the British government vasion, see under Defence Acr, to explore the lower course of the 1842). The procedure for the across the course of the second Niger, an account of which they published in 1832 as Journal of an Expedition to Explore the Niger. During a second expedition to the Niger in 1834 L. was killed by natives.

Landerneau, a seaport tn. of France in the dept. of Finistèrre and the arron. of, and 12 m. E.N.E. of, Brest. There are important manufs. of clothing, linen, leather, etc. It has a 16th-century Gothic church, convent, and marine barracks. Pop. (com.)

Landes, a maritime dept. of South-Western France, bounded on the W. by the Bay of Biscay. It is divided into two parts by the R. Adour; the portion to the N. includes three-fifths of the dept., and is composed of tracts of heath and sand, interspersed with forests of pines and cork trees and numerous marshes, which are being gradually drained into the shallow lagoons which fringe the sea-coast the southern part is hilly and covered with oak plantations, and vineyards which annually produce about 10,000 gallons of wine. The mining of iron ore and bituminous coal is an important industry. There are mineral springs at Dax, and rock salt is obtained there and at Lescours. There are three arrondissements, Mont-de-Marsan (the capital), St. Sever, and Dax. Area 3615 sq. m. Pop. 294,000.

Landeshut, or Landshut, a tn. of Prussia in Silesia, on the Bober, at the base of the Riesen-Gebirge, 30 m. S.W. of Liegnitz. There are manufs. of linens and cotton goods. Pop. 13,573.

Land for Military Purposes. Under various statutes the crown has power to interfere with a landowner's rights, or acquire his land by compulsory purchase for purposes relating to military administration. There are a number of provisions to be found in the Military Forces Localisation Act, 1872; Ranges Act, 1891; Military Lands Acts, 1892, 1900; and the Mili-tary Manceuvres Act, 1907, for the purchase of land for ranges, for volunteers, military manœuvres, barracks, or otherwise for the localisation of or otherwise for the localisation of the military forces, and generally for military purposes. There are ancillary provisions in these Acts authorising the taking, closing, or diversion of highways, the making of bye-laws relative to practice ranges, and the assessment of compensation for

vasion, see under Defence Act, 1842). The procedure for the acquisition of land and the mode of assessment and payment of compenassissment and payment of compen-sation is for the most part to be found in the Defence Act, 1842. Generally speaking, assessment is either by jury or two justices, but in the case of land acquired under any Act which incorporates the Lands Clauses Acts (q.v.), the authority acquiring the land may require the assessment to be settled not by jury but by arbitration. See also under LAND LAWS as to compensation for 'injurious affection.'

Landgrave, or Count (Ger. Land, country, and Graf, count), a German title of nobility corresponding to a duke in England and a count in France. It was originally adopted by some counts, several of them of royal rank, in the 12th century to distin-guish themselves from interior counts under their jurisdiction. At the break up of the Holy Roman empire the Ls. assumed independent sovereignty. The title is now rare, most of the landgraviates having been incorporated in the Prussian empire.

porated in the Prussian empire.
Landi, Gasparo (1756-1820), an Italian painter, born at Piacenza. He studied under Pompeo Batoni and Corvi, and was the founder of the modern Italian school. He was president of St. Luke's Academy, Rome, and in 1781 was awarded the first prize at the Academy. Parms. His prize at the Academy, Parma. His best known pictures are: 'The Ascent to Calvary,' 'The Maries at the Tomb,' and 'The Burial of the Virgin,' He died in Rome.

Land Laws. In no respect does the peculiar genius of a powerful nation manifest itself so much as in its L. L. Land in relation to the notion of proprietorship stands upon so different a footing from all other kinds of property in the L. periods

existed. ception

right of whose rights of user are conditioned solely by the prohibition of injuring others in exercising them, or of an eldest son under a strict settlement whose rights are hardly inferior, would have astonished a Roman aristocrat. Yet in the later period of the Roman system it is possible to see the making of byc-laws in the emphyteutic tenure by which practice ranges, and the the proprietor alienated all his rights, of compensation for except the bare ownership, for a

rent (pensio), not only an approximation to the English long leasehold but cultivators, and the evils of the the link between the Roman and the middle-man and the absence landfeudal systems of land holding (see also Maine, Ancient Law, ch. viii.), which latter lies at the root of the whole English L. L. In the earliest times the arable lands of the Romans were cultivated in common by the several clans, each clan distributing its produce among the several households belonging to it (Mommsen). This was a system essentially fitted to an agricultural community where wealth was measured not in terms of money or rent, but in cattle and the usufruct of the soil. The constitution itself was based on clanship and this. communal system of husbandry, but even before the Servian constitution this system had yielded to a process of distribution of land by which estates were for the most part no larger than could be farmed by a paterfamilias aided by his sons and slaves (generally about 20 jugera or 124 acres). Mommson says that it was left to custom and the sound sense of the population to prevent the excessive subdivision, and it is probable that in the ordinary case landed estates remained entire in the possession of co-heirs, notwithstanding the absence of legal restrictions on free divisibility. There were, it seems, even a number of small cottagers and gardener proprietors. Ground under pasture during this the earliest period was state-owned, though the privilege of user was confined to the citizen. of user was confined to the citizen. Such public land, however, formed but a small proportion to the arable land. The strength of the early knomans consisted in the very fact that they merged each conquered tribe entirely into the Roman has by knight service (see under number of adsidunt, or 'freeholders,' for as Mommsen says, 'none has services as in socage tonure (see also equalled the Roman in thus making GRAND SERIJEANTRY and HERIOT). for as Mommsen says, 'none has services as in socage tonure (see also equalled the Roman in thus making GRAND SERJEANTRY and HERIOT). the ground he had won his own by the sweat of his brow, and in securing by queror, the feudal system of L. L. the ploughshare what had been gained imay be said to have allowed of a by the lance.' But side by side with treble ownership; the double ownerthese smaller farms there existed the somewhat later in the recal period the these smaller farms there existed is the somewhat later in the regal period the latifundia, or broad acres, of the Roman patricians, though exactly later Roman L. L. may have evolved how and when they were formed is a system in some respects not dismatter lost in obscurity. It was from similar to continental foundism, the great Roman landlords that the there was in them nothing like the Roman nobility sprang, much as the English system. territorial aristocracy of England under the si was evolved. At first, however, the king. It is t great Roman landlords and senators, commendati among whom had been distributed fidelity and the clan lands, were literally fathers gations of military service. from the fields which they parcelled features common to English and out among the common people as a Teutonic feudalism. But the confather among his children.' There ception of England as the hereditary

long term in consideration of a yearly, was then a close relationship between the great owner and the farmers or lord were then unknown. Utopian states seem doomed to early dissolution in all progressive com-munities, and it was not long before the latifundia became cultivated by slave-gangs under balliffs who were themselves slaves or freedmen. This system, according to Maine, soon gave way with some proprietors to that of the emphyteusis by which the land was leased in perpetuity to a free tenant at a fixed rent. The slavetenant at a fixed rent. gangs of other proprietors became the coloni of a later day, and have, it seems, some analogy to, even if they are not the ancestors of, the melayer tenantry of the S. of Europe. fundamental distinction between the older Roman individual ownership by a senatorial father of the people and the landholding aristocrat of later times was, that the former was sole owner, though his 'tenants on sufference' had de facto rights and privileges of no mean order (most of these, indeed, furnished the material for the Roman policy of colonisation); while the latter was based upon the leading characteristic of both the foudal system and the L. L. founded upon that system of double ownership, the tenant being treated as a true proprietor so long as he pays the quitrent to the granter of his lease, while the reversionary ownership of the granter is kept alive by a power of re-entry on non-payment of rent. This

were

flef of the king was quite indigenous; and the subsequent evolution of the English L. L. through the principle of primogeniture into a hard and fast system of succession in a strict line of devolution, which served to keep great landed estates concentrated in the hands of a single member of a country family, was no less peculiar a feature of the English feudal organisation. The strength of feudalism in the English L. L., in spite even of the later privilege of testamentary disposition, is indeed remarkable, and has earned for England the name of the 'Hercu-laneum of Feudalism.' For even with full power of disposition, wills of land, with the English landed classes, are used chiefly to 'aid or imitate that preference of the eldest son and his line which is a nearly universal feature marriage settlements of property.

The greatest interest which an English subject can have in land, viz. an estate in fee simple, is theoretically short of being absolute, in that it is subject to the shadowy ownership of the king. But such interest confers almost plenary rights on the owner. It confers free enjoyment, consistently with security to the persons and property of others, and disposition, and is characterised in all but form by all the incidents of absolute ownership. An owner in fee simple can freely dispose of his land in his lifetime, or by his will, either for his whole interest or for any part of it, or for a term of years (see Chattel Interest, Landlord and Tenant), though this right of disposal is subject to the operation of the bankruptcy laws against voluntary assignments or conveyances in fraud of creditors. It is not, however, to be supposed that these characteristics of full ownership arose spontaneously, or as necessarily incidental to feudalism; on the contrary, each fragment of such ownership represents the result of a hard-fought contest be-tween feudal overlords and their tenants in which the latter ultimately deprived the former of everything, although in a few cases a negligible quit rent may still be payable by a freeholder (see De Donis, and also Escheat). The fee simple owner, or owner of a freehold of inheritance, may freely grant away estates for life or in tail (see ENTAIL, ESTATE), or create leases of his lands for number of years, and charge on them the payment of any sum of money by way of annuity, rent-charge, or mort-

The right to the air above has hitherto been morely one way of expressing the owner's right to creet buildings to any height he chooses, subject, of course, to any limitations on that right which he may have imposed upon himself by covenants with grantess of his adjacent land, and subject to the right to light gained by prescription by other persons; but in these days of the development of the art of flying the right may conccivably require a more liberal inter-pretation. The right to the actual soil in the case of a highway is subject to the public right of way (see High-WAYS), but is otherwise unimpaired, though mining operations must not be carried out so as to break up the highway. The right to the minerals is subject to the crown's right to any gold or silver mines (called 'royal mines'). The crown is also entitled to buy copper and other ores at a The freeholder may also valuation. except out of a conveyance of his land the mines lying under it, and they will then remain his corporeal property, subject to the duty of working them in such a way as to leave sufficient support to the surface. Where copyholds have been franchised (converted into freeholds), the lord of the manor or paramount freeholder continues entitled to the minerals. Water is technically land covered with water (see LAND), but the owner's right to water depends on whether it is percolating, or running in a defined stream or channel; if the former he may do as he will with it, notwithstanding the detriment to others who may have relied upon it previously for water-supply, and notwithstanding that his drainage operations may cause a subsidence of neighbouring property (see DAMNUM ABSQUE INJURIA). But if the latter, he has no right to exhaust the supply or pollute the stream, or divert or dam the water, unless the diversion causes no material injury to other landowners over or through whose land the stream also flows, or unless he has obtained a right to divert or pollute by prescription (uninterrupted user for forty years); and whether the water be tidal and navigable or not, every other riparian owner has an equal right to take a reasonable quantity for domestic or business purposes.

Land

But all these incidents of absolute ownership may be limited in a number of ways by the owner himself, who of ways by the owner innered, who besides being able to grant portions of his land to others for any estate, may grant rights of way or other incorporeal. to the freeholders of such manor), or 'appurtenant' (i.e. attached to owner-ship of particular land), or 'in gross' (i.e. belonging to a person in his own right and not depending upon ownership of land at all, and generally owing their origin to some former grant, real or factitious, or by pre-scription). Various rights against an owner of land may also be gained by prescription, i.e. uninterrupted user for a certain number of years. A right of way is gained in twenty years, a watercourse in forty. A right to light for any dwelling house or other building in twenty years (subject to the right having been enjoyed by some consent or agreement expressly given in writing). Where the owner of a house and adjoining vacant land sells his house, a right to light over the land arises by implication, but if he sells the land such easement arises only where he expressly reserves the right to light over the land sold.

In regard to the right of an owner to carve out of his own estate or interest lesser estates, it is to be observed that there exists in our L. L. a fundamental rule against what are called perpetuities. An owner may grant by deed or will a number of life estates to existing persons and thereafter interests in 'remainder' and reversion '; the whole forming, as it has been aptly said, a series of estates projected on the plane of time; but in so doing he must take care that no interest given to some unborn person is so remote that it cannot arise within the compass of existing lives plus twenty-one years, with an added nine months for the period of gestation. This rule against perpetuities, which was early designed in the interests of

profits a prendre (see COMMONS). In remainder given to unborn persons Easements, commons, and other in a regular order of succession, limited rights over and in the produce of the land of another are either due of the land of another are either jointure (q.v.), and portions (see also HOTCHPOT) for younger sons. What ancient feudal manor and belonging usually happens is that an eldest son on attaining his majority or marrying enters into a deed whereby he and his father resettle the land on the father for life, then on the son for life, and then on the son's son in tail: and so the process is repeated from generation to generation. The tenant for life has, under the Settled Land Acts. practically all the powers of a tenant in fee simple (unless, of course, leaseholds form the subject of settlement, when entirely different considerations apply); but such powers are exercis-able chiefly in the interests of the inheritance; and he is limited as to his power of sale of the mansion-house, heirlooms, etc., and in any case a sale of any part of the lands must be at the best possible price, and only after notice to two of the trustees of the settlement.

The rights of a lessee are determined by the conditions of his lease, and need not be further discussed here, except to notice that where there are no restrictions by the lessor, the lessee's right to use the land is as un-

fettered as that of a freeholder. Enough has been said above to show how valuable the legally safeguarded rights of a landowner are. and it is not surprising that economists and publicists have at various times endeavoured to prove that private property in land is naturally inequit-able. In England a strong movement has been set afoot in recent years for the taxation of land values. A tentative step in this direction was taken in the celebrated budget of 1909, which not only provided for an original valuation of every acre of land in the kingdom, with a differentiation be-tween site and 'total' value, but imposed some four new land taxes directly aimed at the land monopoly the free circulation of land, is capable directly aimed at the land monopoly of less scientific expression by saying in the interests of the developer of that an estate granted (see Grant) land (see Land Taxes). Some have that an estate granted (see Grann') land (see Lann Tannes). Some have to an unborn person for life cannot gone so far as to assert that land is be followed by any estate to any child so different from all other kinds of such unborn person. The rule, however, is subject to modification ought to be the exclusive source of the offending gift is preceded by an estate tail (see Entall, Estate). But this rule is further subject to a practical limitation imposed by the conveyancing device of the strict estitement, by which the substance if not the shadow of perpetual estates in the hands of a family by save substance in the hands of a family by alues was taxed out of existence, and estates in the hands of a family by land thereby became wholly state-creating life estates in existing or lowed. This article is not concerned living persons, followed by estates tail or land nationalisation, except in so far as they have found expression in L. L. The undeveloped land duty is designed to force all land into its best use, and thereby to free land on the margin of cultivation; the increment value duty recognises what may be called the social aspect of private property, by forcing the owner to give to the state a proportion of the gain that has accrued to him by reason rather of the collective action of the community than by his own exertions; and these are some of the essential principles of the 'single tax' movement. Again, the germ nationalisation is clearly recognisable in the creation of small holdings and allotments, and, indeed, in the very principle of the compulsory purchase of land for any public purpose. That principle would in all probability be carried carried very much farther, at all events in the direction of purchase for small holdings, town-planning schemes, housing schemes, and other public purposes, were it not for the heavy payments by way of com-pensation. Under the Lands Clauses Acts compensation has to be paid not only to owners of land purchased compulsorily, but also to owners whose land is 'injuriously affected' by the scheme or purpose for which land has been purchased. But the decided cases establish that compensation for injurious affection is only payable when the injury is actually due to the execution of the works contemplated by the scheme; is actionable but for the statute or private act authorising such works to be executed; and constitutes an infringement of a right incident to land (i.e. a mere personal injury though connected with the enjoyment of particular land, e.g. a contract to erect a building on land, is not ground for compensation). Again, 'special adaptability' is an element to be taken into consideration in assessing compensation, e.g. where land is compulsorily taken for the purpose of making a reservoir, the fact that the land has peculiar natural advantages for supplying a district or area, apart from any value created or enhanced by the scheme or act for appropriating the water to a particular local authority, may be taken into account in awarding compensation. But on the other hand, persons whose property has obviously been increased in realized value by a particular section. increased in market value by a parti-

single tax' movement, the principles of taxation of land values in general, dicates an accretion of value due to reland nationalisation, except in so far as they have found expression is designed to force all land into its lead to recome the margin of cultivation; the increment value duty recognises what crement value duty recognises what remement value duty recognises what the former implies that an accretion of value has accrued from some origin which cannot be traced, or to a cause not specially connected in L. L. The undeveloped land duty with the owner, such as the general progress in wealth of the community, best use, and therefore implies that an accretion of value due to the former implies that an accretion of value due to the former implies that an accretion of value due to the community.

A local authority may under the Housing and Town Planning Act, gain that has accrued to him by reason rather of the collective action of the community than by his own exertions; and these are some of the whose land has been so enhanced in value due to the making of a town-planning scheme from the owner.

County councils are empowered by the Small Holdings Act, 1908, to purchase or take on lease land within or outside the county to provide small agricultural holdings exceeding one but not exceeding fifty acres, or if exceeding fifty acres, of an annual value for income-tax purposes not exceeding £50, and the land may be purchased either compulsorily or by agreement; but if by the former method the council must first submit the proposed order under the Lands Clauses Act to the Board of Agricul-ture for confirmation. The council may then either sell or let the land for small holdings; in the case of sale. one-fifth of the purchase price must be paid down and one-fourth may be secured by a perpetual rent charge, while the balance may be paid by half-yearly instalments extending over a period of fifty years. The council may in their discretion advance four-fifths of the purchase price to a tenant who purchases land for a small holding from his own landled. Land let or purchased for small holdings may not be assigned or sublet without the consent of the council. Any borough, may acquire

s not ground for compensation) dagain, 'special adaptability' is an element to be taken into consideration in assessing compensation, e.g. where land is compulsorily taken for the purpose of making a reservoir, the lact that the land has peculiar natural advantages for supplying a district or enhanced by the scheme or act for appropriating the water to a particular local authority, may be taken into account in awarding compensation. But on the other hand, persons whose property has obviously been increased in market value by a particular town or other public or quasipublic improvement are required to pay a special charge, called 'betterment charges' assessed in such improved value. Betterment charges are analogous to increment value in

used to denote the right of Irish | tion is bound under the Land Transfer tenants in Ulster (called Ulster tenantright) to claim the value of un-exhausted improvements made by him on his farm if evicted. Under the Agricultural Holdings Act, 1908, a tenant is not only entitled to compensation for improvements expressly classified in the Act, but the Act ex-pressly preserves his right to compensation for matters which formed the subject of compensation previous to or irrespective of the Act, e.g. in respect of away-going crops (i.e. crops sown by the tenant, and which ripen after he goes away), and fixtures. The subject of tenant-right is now, practically speaking, wholly regulated by statute, although origin-ally it was an ancient customary right entitling a tenant to have his messuage or tenement during his life, and after his decease to the eldest issue of his body.

The mode of disposing or conveying land is more fully discussed under ONVEYANCE, CONVEYANCING, but on this part of L. L. it is to be observed that there is a very general tendency to sir

of conveyancir

the system of distinct from that of deeds), a system which obtains in the county of London, Germany, Austria-Hungary, Australasia, Switzerland, and Canada. Land is necessarily not a subject-matter capable of such simplified modes of disposition as other property, and to obtain a good title it is necessary to employ a solicitor to trace back the history of the land that is being negotiated for for a certain number of years. This history, or abstract of title, is sometimes of the control of the contr great length, and not seldom contains some hiatus in the chain of devolution which may not inconceivably vitiate the purchaser's title. But if once a system is adopted of requiring the rowighnation compulse overy any transfer parcel of willi become .

measurably simplified. By the Land Transfer Acts, 1875-97, the owner of land may be registered as the proprietor, and thereafter, if he wishes to transfer the land, he may do so simply by a registered transfer. The title may be registered either as an absolute title, qualified title (i.e. subject to some specified defect), or merely as a possessory title (i.e. subject to any adverso claims which existed or were capable of arising at the time of registration). The Land Transfer Act, 1897, makes registration of title compulsory within the county of London (exclusive of the city). The applicant for registra-

Rules, 1908, to hand all his title-deeds to the registrar for inspection. The great advantage of registration of a title is to obviate the necessity of a purchaser investigating the title, and the effect is that the purchaser gets the full legal estate (q.v.), subject only to such mortgages or other charges as are entered on the register, and subject to easements. Registration of deeds under various Acts, most of which have been superseded by the which have been superseded by the Land Charges Act, 1900, obtains in Middlesex and Yorkshire. In the land registry in London the following claims against land must be registered: judgments, debts due to the crown, pending law-suits, annulties, deeds of arrangement, and land the registry in the consequence of notcharges; and the consequences of nonregistration are that a bona fide purchas them. Or stell both heexistenes. The rest of senter can of deci-al agree of unfectivel. In that the area present unfectivel. In that the crime table, be one or on, switch land, the Birth Cole des, Caroda, and S. America. As to the prohibition of tenure of land by charities or other corporations, see Charities, Charit-able Uses, Mortmain.

and Agg's Williams's i.): Hood and chains a Conceptancing, Sellied Land, and Trustee Acts, 1909; Pollock and Mattland's History of English Law; Maine's Ancient Law; Johnstone's Law of Small Holdings; article on 'Tenant-Right' in Wood-Renton's

Ency. of English Laws; Mommsen's History of Rome; Muirhead's History of Roman Law; Hunter's Roman Law. Land League, The formed by Michael

Davitt, and other Irish politicians in 1879, as an organisation for promoting reforms of land tenure in Ireland. The agitation of its members resulted in Irish tenants forming a kind of trade union, by the rules of which they were bound to refuse dealings with any tenant who had taken land from which its former occupier had been evicted. One of the first victims was Captain Boycott, whose name has ever since been a synonym in the English language for shunning a person. According to modern historians of Irish affairs, the L. L. did its utmost to warn the peasantry against deeds of actual violence, but the government, fully believing that its members had encouraged and incited tenunts that expends the second control of the se tenants to commit outrages, instituted a prosecution against Mr. Parnoll, Mr. Biggar, Mr. Sexton, Mr. Dillon, and the entire executive body of the L. L. The prosecution produced no result, for, as Mr. Justin M'Carthy (History of our own Times) points out, the crown could never

have found a jury in Leinster, Mun-ster, or Connaught, to convict Mr. Parnell of sedition, unless it had 'packed' the jury. The L. L. was a great factor in the history of agrarian may be validly treated verbally or by reform in Ireland, and one of the first legislative fruits resulting from it was the concessions in Gladstone's Land Bill, 1881, though Parnell himself did not deem it politic to accept the Bill in the name of his revolutionary followers as anything more than a small instalment of their just demands. The L. L. through Parnell then advised Irish tenants generally to abstain from litigation landlords against until certain test cases had been decided. certain test cases nad been declared.
The result was that the government interpreted Parnell's advice as an attempt to thwart its legislation, and promptly imprisoned him under the Coercion Act. Later, when other Coercion Act. Later, when other prominent members of the L. L. were imprisoned, the league was dissolved.

Landlord and Tenant. Technically an owner in fee simple (see ESTATE, INHERITANCE, HEREDITAMENTS) who leases his land to another for 999 stands to that L. and T. In

onship L. and 1. WILL be restricted to its popular connotation of a grant so limited in duration, and so burdened with reciprocal obligations or covenants (q.v.) for rent, repairs, and the like, that the grantor or landlord retains an appreciable or substantial interest in the land leased. Any landowner may grant a lease to another for a term not exceeding in duration the interest or estate he himself holds in the land; but a tenant-for-life under the Settled but a tenant-for-life under the Section Land Acts can, under certain conditions, grant building leases for 99 years, mining leases for 60 years, and occupation leases for 21 years, and such leases will stand good even though they may endure beyond the life of the lessor, for they are made for the benefit of the inheritance pather they that of the tenant-for-life rather than that of the tenant-for-life. and the latter will have to set aside a certain portion of the rents from mining leases and fines reserved on those and building leases as capital moneys. With certain exceptions any one may become a tenant; but an infant (see INFANCY) may on coming of age, repudiate within a reasonable time

leases taken by him while under age.
Tenancies are either for a fixed term of years (commonly called a leasehold), from year to year (yearly tenancy), or for a shorter term than a year including the common of a year, including the tenancy of a lodger. No precise or technical form of words is required to constitute a

may be validly treated verbally or by writing; and similarly leases for three years, provided the rent reserved is at least two-thirds of a rack-rental, or of the full annual value of the land; all other leases should be by deed. verbal agreement for a lease for more than three years is unenforceable, unless there has been amounting to part performance (as to which see FRAUDS, STATUTE OF); but if the tenant enters into possession it takes effect as a tenancy at the will of the landlord, and if he pays rent it becomes a yearly tenancy. If in writ-ing, though not under seal (i.c. not a deed), the tenant can get the agreement to grant a lease enforced by a court of equity (q.v.). The advantage of a deed is that it gives the legal estate, and where two innocent persons are defrauded by a landlord purporting to grant the same land to two persons at once, he who has the legal estate prevails. If both have deeds, the first in date prevails; otherwise a deed is now of no great importance. As to building leases granted in consideration of a ground rent, see under GROUND RENT.

Leases are generally prepared by the landlord's solicitor, who submits a draft lease to the tenant's solicitor for approval or amendment. lease is then engrossed (formally written out) in duplicate, and the counterpart being retained by the landlord and the lease delivered to the tenant. The latter, if he does not employ a solicitor, should see that the engrossed lease contains all the amendments or alterations agreed upon. The tenant pays the expenses of the landlord's solicitor according to a fixed scale (see FEES). usually contain covenants (q.v.) by the tenant to pay rent, rates, and

in tenantable of the term to

deliver up the premises in good repair; to insure the premises against fire; to permit the landlord on giving notice to enter and view the state of repair : and not to assign or underlet without the landlord's consent; and a coven-ant by the landlord that the tenant shall have quiet possession. In the absence of express agreement the tenant and not the landlord is bound to do repairs. Most leases also con-tain a proviso for re-entry by the landlord on the tenant failing to perform his covenants; but this is not to be interpreted literally, as the landlord must first give the tenant notice leasehold, but it is unwise, especially lord must first give the tenant notice from the tenant's point of view, not to of the breaches (q.r.) complained of,

and then, if the tenant continues to tance of rent will convert such premake default, take proceedings in

electment (q.v.).

It is to be observed that in practice the above covenants are often varied the anove covenants are often variety by agreement, and of course it is to each party's interest to throw as many of the burdens as possible on the shoulders of the other. The principal bone of contention is the repairing covenant; and in this connection it should be noted that a covenant to yield up in a good state of repair does not mean that the tenant is under an obligation to renovate the premises. and the class of neighbourhood will be in deciding what repairs the tenant was bound to execute. If the premises are burnt down, the tenant will still be liable to pay rent in the absence of value if the landlord gave the notice. express stipulation in the lease to the Except in the case of furnished houses of the Housing of ing covenant, he will also have t pay so much of the expenses of ropa as are not covered by insurance moneys.

A yearly tenancy is one which expressed to be from year to year, or in respect to which the tenant pays a shall be implied a condition that the in respect to which the tenant pays a yearly rent. A clear six months' notice is necessary to determine a yearly tenancy. A tenancy for one year certain, and thereafter from year to year, is not a yearly tenancy, but operates as a tenancy for two years at least, and the earliest moment at which it can be determined is at the end of two years by notice given at the end of the first year. Quarterly, monthly, and weekly tenancies may be determined by a clear quarter's, mon' The

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make good actual damage caused by him.

Lodgers have the same rights, and are unde:

tenants. contract the locality determines what notice tions. to quit must be given. Generally speaking, if the hiring is from year to year, six months' notice must be given, of things not liable if quarterly a quarter's notice, and so on; and a lodger who quits without ally, see Districts.) giving notice is liable for six months', Agricultural tent

a quarter's, or a week's rent according to his contract.

and reasonable time to remedy them, | will. At law the payment and accepcarious tenancy into a yearly tenancy. Tenancies at will do not often occur in practice, any more than tenancies by sufferance, i.e. where the tenant holds over atter expiry of his lease. Most lawyers regard the tenancy by sufferance as a legal fiction to explain feudal archaisms, and in practice it may be safely assumed that the law will construe a tenancy of holding over to be continued on the same terms as the expired tenancy, or else as a yearly tenancy, subject, of course, to there being clear cyidence of a for the nature and ago of the premises merely contumacious holding over against the will or knowledge of the taken into account by a court of law landlord, in which case the tenant will be liable for double rent where he has himself determined the tenancy by notice; and for double the annual notice; and for double the annual value if the landlord gave the notice.

> ots, there is no he part of the Housing Acts i tenancies of

houses of a certain annual value there

London let at a rent not exceeding £40; to houses situate in a borough or certain district with a population of 50,000 or upwards, and let at a rent not exceeding £26; and to houses elsewhere let at a rent not exceeding £16 (see also under Housing of the WORKING CLASSES). But it is to be noted that a person who knowingly lets for hire premises in which any person has been suffering from any infectious disorder, without having duly disinfected the premises and articles contained therein, to the satisfaction of a medical practitioner, is liable to a penalty not exceeding £20, or to one month's imprisonment.

The right of distraining for rent upon goods situate on the premises is subject to a great number of limitations. As a rule distress is levied through a certificated balliff armed with a written warrant. (For a list of things not liable to be distrained upon and the law of distress gener-

Agricultural tenancies or holdings stand on a somewhat special footing. In the absence of agreement to the Tenancies at will (apart from the contrary a tenancy from year to year ease of verbal contracts noticed above) arise where a tenant is let into possession of land on the terms that he is tenancy. The Aerfeultural Holdings either bound to quit at the will of the landlord, or entitled to go at his own compensation from the landlord at the expiry of the lease, for certain of leases burdened with onerous cove-improvements made by the tenant, nants, see DISCLAIMER. the compensation payable being based on the market value of the improvements to an incoming tenant, less a sum representing any benefit extended by the landlord to the tenant in consideration of improvements. In the event of dispute as to the amount of compensation, the matter must be settled by arbitration. As to the tenant's right to remove agricultural fixtures and the law of fixtures generally, see FIXTURES. As to the dis-or average ren claimer by a trustee on bankruptcy given below:-

The stamp duty on a lease or an agreement for a lease for any term not exceeding one year of a dwellinghouse let at a rent not exceeding £10 is a penny; upon a lease or agree. ment to lease a furnished dwellinghouse or apartments for a definite term less than one year at a rent exceeding £25, half a crown; and upon a lease or agreement for a lease of any lands or tenements at a yearly or average rent according to the scale

Rent exceeding	Rent not exceeding	Term not exceeding 35 years	Term between 35 and 100 years	
£ s. d. 5 0 0 10 0 0 15 0 0 20 0 0 25 0 0 50 0 0 75 0 0 100 0 0	£ s, d. 5 0 0 10 0 0 15 0 0 25 0 0 50 0 0 75 0 0 100 0 0 for each £50, or a fractional part of £50	£ s. d. 0 0 6 0 1 0 0 1 6 0 2 0 0 2 6 0 5 0 0 5 0	£ s. d. 0 3 0 0 6 0 0 9 0 0 12 0 0 15 0 1 10 0 2 5 0 3 0 0	£ s. d. 0 6 0 0 12 0 0 18 0 1 4 0 1 10 0 4 10 0 6 0 0

The stamp duty on a counterpart is bs., except where the duty payable on the lease itself is less than 5s., when the same duty is payable on both documents. See Woodfall, Landlord and Tenant; Foa, Landlord and Tenant.

Landnama - Bok, or the Book of Settlements, written by Ari Frothi (1067-1148), who is truly called the lather of Icelandic saga. It is the earliest historical record of Iceland, and is written in the Norse tongue. The first part tells of the discovery of the island, and the other four parts are detailed and faithful accounts of the settlers in its four quarters, with mention of their dwellings, palaces, temples, and descendants.

Landon, Charles Paul (1760-1826), a French painter, born at Nonant. He studied under Vincent and Regnault, and was awarded the Grand Prix He became curator of the (1792), Louvre Gallery, and abandoned painting for literature. He wrote over 100 books on art. His chief pictures are 'Dædalus and Icarus,' 'Leda,' 'Venus and Cupid,' and 'Paul and Virginia.' He died in Paris.

Landon (or London), Gideon Ernst Freiheri von (1717-90), a celebrated field-marshal of the Austrian army, born in Livonia. Entered service of Maria Theresa in 1743, having pre- Walter Savage L., born at Florence.

viously been ten years in the Russian service and gained distinction in several exploits. During the Seven Years' War he contributed greatly to the victory of Hochkirchen, as also to that of Kunersdori, where Frederick the Great commanded in person. L. also commanded during the War of the Bavarian Succession (1778) and the Turkish War (1788-89), when he gained several victories and capture

Life of Lande afterwards N.: poet. began to publish verses when she was in her eighteenth year under her initials L.E. L., and in 1821 brought out *The Fate of Adelaide*, and between this date and 1829 issued other volumes of poetry. Her first novel, Romance and Reality, appeared in 1831, and was followed three years later by Francesca Carrara. Trails later by Frances.

and Trials of Early Life (1836) is said to be autobiographical. In fiction her best work was Ethel Churchill (1837), which was reviewed by (1837), which (Fraser, Jan. 1838). Thackeray Neither her poems nor her novels are read to-day. There is a biography by Blanchard (1841).

Henry Savage, Α. Landor, artist and explorer, grandson

For several years he travelled in the upon him. There is a biography by Far East and later in America, Aus-| John Forster (1869). tralia, N. Africa, and S. America. He was the first white man to reach both sources of the great Brahmaboth sources of the great Brahma-putra R. and establish their exact position (1897), establishing, at the same time, the fact that no range higher than the Himalayas existed to the N. of that river. He was also the first white man who explored Central Mindanao Island, discover-ing the existence there of the 'white tribe' of the Mansakas. He holds the tribe of the Mansakas. He holds the world's record in mountaineering, having reached the height of 23,400 ft. on Mt. Lumpa (Nepal) in 1899. He accompanied the allied troops on the march to Pekin in 1900. He has published: Alone with the Hairy Ainu; In the Forbidden Land, 1898; China and the Allies. 1901; The Gems of the East, 1904; Tibet and Nepal, 1905; Across Widest Africa, 1908; The Americans in Panama. 1910: An Explorer's Adventures in Tibet, 1910. Landor. Walter Savage (1775-1861),

Landor, Walter Savage (1775-1861), an author, was educated at Rugby and Trinity College. He declined to be called to the bar, and preferred to many. He spent a wandering life

many years, staying at Bath a Somersetshire other towns, of his father in 1805, he came into a handsome competence, and three years later went to Spain and served as a volunteer against the French. In 1811 he published his second book, Count Julian, a tragedy, which met with the same fate as its predecessor. with the same rate as its predecessor. He now bought the estate of Lianthony Abbey, married, and settled down as a country gentleman, but in 1814 he went abroad, where he resided until 1835. In 1824 he issued two volumes of Imaginary Conversations of Imaginary Conversations of Imaginary Conversations of Imaginary Conversations. tions, and three more in 1828-29. From 1835 until 1858 he lived at From 1835 until 1855 he lived at Bath, and then went abroad, where he died six years later. He was hopelessly irascible, and always quarrelling, but he contrived, by some happy chance, to remain on good terms with Dr. Parr, and, later, with Browning. His poems are little read, but his prose will long survive. He carred nothing for monularity or

Landrail, see CORNCRAKE.

Landsberg, a tn. in Bavaria on the Lech, 22 m. S. of Augsberg. It manufs. agricultural implements and manufs, agricultura angles, machinery. Pop. 7293. andenburg,

40 m. N.E. The chief

manufs. are furniture, bricks, and machinery. It has also foundries and breweries. Pop. 39,332.

Landscape (O.E. landscap, landscipe; Dutch landschap), a view of inland natural scenery. The word is used particularly of pictures of rural scenes as distinguished from marine, architectural (external or internal), and portrait pictures. From a scientific point of view it depends on the composition and structure of rock and soil, and on animal and plant life.

Landscape Gardening is gardening on a large scale, its aim being to pro-duce a beautiful effect by means of the right juxtaposition and combination of open space, trees, water, and buildings. Such gardening was practised in early times by the Assyrians, be called to the bar, and preferred to the arry times by the Assyrians, live on a small allowance from his Jews, and ancient Greeks, but little father. He stayed for three years in authentic information is available the country, and in 1798 published his with regard to the style of their first poem, Gebir, which, highly praised gardons. It is possible that they paid by few, including Southey, Shelley, greater attention to architecture, to and Coleridge, did not attract the the external appearance and internal appearance are internal appearance. n they did to

of an estate. rustan period visited Paris in 1802. On the death and later built their luxurious villas amid a garden of shady trees, with cool porticees, fountains, and marble terraces. They probably introduced the art of L. G. into Great Britain. The ruins of a Roman villa were discovered a century ago on the Blenheim estates, and it is conjectured that it was the central feature of Henry I.'s magnificent park at Woodstock. The Italians of the 16th central feature of the 16th tury cultivated the art of L. G. Marble, which needs the background of an Italian sky to set off its beauty, was used to great effect in terraces, fountains, and steps. The gardens of Fontainebleau, set out by Francis I. in direct imitation of those he had seen in Italy, were subsequently al-tered by Henry IV. and Napoleon. Dutch gardening is characterised by its prim neatness, its smooth, carefully kept lawns, and stiff hedges and bushes cut into fantastic shapes supposed to represent animals. In but his prose will long survive. He bushes cut into fantastic shapes cared nothing for popularity or supposed to represent animals. In popular feeling, and was always convinced that his great merits as a writer would be recognised, as, indeed they have been, by posterity, beautiful gardens of Versailles. Of The Imaginary Concersations are the imagera feels hands eagle gardeners, best epitaph that can be pronounced the greatest have been William Kent

(1684-1748), who planned Richmond, He passed through the Academy Park, and Lancelot Brown (1715-83), commonly known as Capability who re-modelled Blenheim. Gorsult the works of Loudon (1822), Repton (1840), F. R. Elliott (1878), and H. E. Milner (1890).

Lands Clauses Acts comprise a series of Acts The Lands Clauses Consolidation Acts, 1845 and 1869, consolutation Acts, 1845 and 1869, Cat's Paw' (1824), is informed with the Lands Clauses Consolidation a spirit of masculine animalism, and Amendment Act, 1860, the Lands clauses (Umpire) Act, 1883, Clauses (Umpire) Act, 1883, Clauses (Traxtion of Cands Clauses (Traxtion of Cands Clauses) to the object of which provide legislative clauses for

corporation in special or private acquired either by agreement or compulsorily for the purpose of railways, harbours, waterworks, gasworks, cometeries, electric lighting, markets and fairs, tramways, canals, housing schemes, small holdings, or any other public undertaking, whether national, local, or municipal, or for commercial purposes of public utility. In the case of compulsory acquisition by the promoters of the undertaking, the Acts provide

be paid to the

(i.e. a private Act for a commercial undertaking) incorporating by reference the Lands Clauses Acts. In the case of a special Act no lands or easements (q.v.) can be taken by the promoters unless actually required for the undertaking, and lands taken must be delineated on the plans de-posited with the Board of Trade, the Local Government Board, or the Private Bill Office of Parliament according to the Standing Orders. But in the case of public Acts it is not necessary to deposit plans, and generally speaking, the powers given by such Acts are more literally construed than those given by special Acts. Lands required for extraordinary purposes incidental to those of the undertaking may be acquired by private treaty. Under the Act of 1845, the promoters may be required to take the whole of a building if they propose to take any part of it; but if not, the compensation will include payment for 'injurious affection.' (as to which see under LAND LAWS). Sec Cripps, On Compensation, 1905;

Hudson, On Compensation, 1906. Landseer, Sir Edwin Henry (1802-73), an English animal painter, was already sketching cows and horses from life at the age of six, and eight

schools, took lessons from Haydon. became an associate of the Royal Academy at the carliest age possible (twenty-four), and in 1830 was elected a full member. His early work, as, for example, 'Dogs of St. Gothard Discovering a Traveller in the Sport (1820) and the dispating the Snow' (1820), and the diverting 'Cat's Paw' (1824), is informed with

dogs dehose spirits of Parliament authorising land to be have been tamed by civilised domesticity than brutes of primeval instincts. He developed, moreover, an amazing facility; the much-admired 'Cavalier's Pets' (1845) was begun and finished in two days. In 'High Life' and 'Low Life' (1829) and the splendid 'Drover's Departure' the spiendid Drover's Departure (1835) L. carefully interweaves a human with the animal interest, whilst 'Jack in Office' (1833) and 'Dignity and Impudence' (1839) afford delightful illustration of his humorous vein. 'The Monarch of the which is genera

Glen (1851) nobly evinces his sense
tion. The only persons entitled to of the dramatic, and 'The Old
take lands under the Acts are the Shepherd's Chief Mourner' (1837) is a masterpiece of pathos. Finally, his 'Man Proposes, God Disposes' (1864) is gruesome enough to challenge com-parison with David's 'Anatomy parison Lesson.

Land's End, a promontory of S.W. Land's End, a promontory of S.W. Cornwall, England, which forms the most westerly point of the country. It is 9 m. S.W. of Penzance. The End is a turf slope, ending in a grantte cliff about 60 ft. high. A natural tunnel pierces the headland, and there are interesting caves which can be yighted at leave tide. Dengerous be visited at low tide. Dangerous rocks lie off the point; the Longships lighthouse (erected 1793) is situated about a mile out.

Landshut, a tn. on the Isar, Upper Bavaria, 38 m. N.E. of Munich. It contains many beautiful churches the castle of Trausnitz (13th century), and a monastery, formerly the seat of a university. Here the Austrians defeated the Bavarians and were defeated by Napoleon in 1809. The chief manufs. are machinery, rope, tobacco, and chemicals. Pop. 25,150.

Landskrona, a scaport on the E. Landskrona, a scapers on the side of the Sound, in the prov. of Malmöhus, 15 m. N.E. of Copenhagen in Sweden. It has an excellent harbour and is busily engaged in sugar-refining, tanning, and other industries. Many battles took place in the reighbourhood during the 18th in its neighbourhood during the 16th and 17th centuries, and in 1667 it years afterwards became an exhibitor. was the scene of a great naval victory

chalk and liassic clay L., which a outline of

due to th the clay until the superincumbent mass lurches forward, and forms an undercliff. L. are not uncommon in mountainous districts, where overhanging rocks that for centuries have withstood the elements suddenly become displaced by a heavy rainfall or by the melting of the snows.

Land Taxes. 'Land tax' under an

Act of 1798 is payable upon all freehold and leasehold property, in respect of which such tax has not been re-deemed. This tax is assessed upon the annual value of freeholds and leaseholds in every parish; each parish is liable to pay a fixed proportion of the tax, which is raised by an equal pound rate which must not exceed is, nor be below id, in the £. A landowner whose annual income does not exceed £160 is exempt from payment, and a remittance of one-half of the tax is allowed where his income does not exceed £400. Relief must be claimed before actual payment of the tax. Lands or tenements, the yearly value of which is below 20s., are not liable to assessment. The tax may be redeemed as to any lands or houses by payment to the inland houses by payment to the mining that it on). The duty is only payable where sum equal to thirty times the tax the increment amounts to at least 10 charged upon such lands or houses, and such sum may be paid either in the first 10 per cent., the first 10 per cent. of the four equal annual insuch increase is exempt. All money the land is allowed for in stalments of not less than £5 each, or by annual instalments of not less than

Tax, the landlords' property tax on owners of lands or Schedule A of the Incor 1842, is strictly a tax up

1842, is strictly a tax up sed for sporting LAND). It is assessed or value of all lands and tenements (unless the value let houses being exempt). Such for agricultural purposes (c) small annual value being the full rack rent, houses occupied for tweive months as ascertained on a quinquennial previous to the collection of the duty,

of the Swedes over the Danes.
Formerly it was called Landor and the first instance, he may deduct it was strongly fortified. Pop. 16,041.
Landslips, falls of rock and large portions of land, which, for various reasons, have been detached from next rent payable to the superior their original position or broken landlord. Under the Finance Act, was from a diff. One of the natural 1894, a deduction is clearly in the away from a cliff. One of the natural 1894, a deduction is allowable in the away from a clin. One of the matter causes in producing L. is water, con- case of lands and farms to the extent sequently, they are frequent on the coast, where the continuous wash of in the case of buildings, to the extent the waves gradually undermines the of one-sixth where the landlord the waves gradually undermines the of one-sixth where the landlord rocks or soil and makes deep cracks executes the repairs, and where the in the base of the cliffs. The cliffs of tenant does the repairs, such a rethe S. of England, consisting of duction (not executing one-sixth), as chalk and the constant down to the cliffs and the constant down to the will bring the assessment down to the rent payable by him. There is also an allowance to owners of lands and houses in respect of the average cost of maintenance, repairs, insurance, and management up to one-eighth of the annual value in the case of land. and one-twelfth in the case of houses. This special allowance does not apply to houses over £8 annual value. Further deductions may be made for L. T. (see above); for drainage rate; and where the owner pays, for tithe commutation rent charge, and tenant's rates and taxes. There are also four new duties under the Finance

Act (1909-10) 1910 Act. Increment value duty.—A stamp duty of 20 per cent, on the increment (q.v.) value of land. The tax is payable on certain specified occasions:

(a) When land is sold; (b) when land is leased for a term not exceeding fourteen years; (c) when land passes by reason of the death of the owner; (d) in the case of land belonging to a corporation the duty is payable in 1914, and at the end of each subse-quent period of fifteen years, unless the corporation elects to make annual payments. The tax is charged on the amount by which the site value of the land at the time of payment exceeds the original site value as at April 30, 1909 (the date of the original valusspent upon the land is allowed for in the assessment. A purchaser who has bought land within the last twenty years which has gone down in value 260 over a period over four but not exceeding sixteen years, with interest at 3 per cent, on the balance after payment of each instalment.

Though technically styled Income Tax, the landlords pror

h time as it has for agricultural

by the owner or holder of a lease of fifty years, where the annual value is not over £40 in London, £26 in towns with a population of 50.000, and £16 elsewhere; (d) agricultural holdings, occupied and cultivated by their owners or leaseholders, not exceeding 50 acres and of a value not exceeding £75 an acre; (c) recreation grounds held by a body corporate or unincorporate, or otherwise than for profit. Up to March 31, 1912, some profit. Up to March 31, 1912, some 272,350 valuations were made for

the purposes of this duty, and the valued comprised was £106,180,348; but the total amount of duty for 1911-12 was only £6093, the total actual amount of increment

taxed being only £57,967. 2. Reversion duty is at the rate of £1 for every £10 of value of the benefit accruing to a lessor by the determination of a lease. The value of the benefit chargeable is amount (if any) by which the total value of the land at the time of the falling in of the lease exceeds the raning in of the lease exceeds the total value at the time of the original grant, and 'total value,' means the amount which the fee simple (see ESTATE) would fetch in the open market if sold at the determination narket it soid at the determination of the lease, subject to fixed charges (rates, taxes, etc.), public rights of way, casements, etc. If increment duty has been paid, reversion duty will not also be payable on the same increase of value, and the converse also applies. The duty is not payable on a lease of agricultural land, or on leases for not more than twenty-one or where the reversionary interest is itself a leasehold interest not exceeding twenty-one years, or by those who before April 30, 1909, purchased reversions of leases falling in within forty years from that date. The total yield for the year 1911-12 was £22,498, the actual assessment being £33,030.

3. Undereloged land duty is important to the part of the par

posed annually on the site value of undeveloped land at the rate of one halfpenny for every twenty shillings of that site value. Land is 'undeveloped 'if it has not been developed. by the erection of dwelling-houses, or of buildings for the purposes of any business, trade, or industry other than agriculture, or is not otherwise used bond fide for any business, trade, or industry other than agriculture. Begins of the purpose sides agricultural land, which is exeither wholly or partially, according to it

are exempt: L acre occupied ing-house; lar

vantage or convenience, c.g. parks and open spaces; crown lands, and land held for charitable purposes. the United States Coast Survey until.

The site value chargeable in 1910-11 was £4.958,402; and the duty assessed was £4.958,40°; and the duty assessed £10,330, the actual yield being only £1162; in 1911-12 the assessable site value was £12,118,560, the duty assessed £25,247, and the amount of duty actually paid £10,218.

4. Mineral rights duty is payable at the rate of 1s. in the £, in respect of the rental value of all rights to work minerals, and of all rights to work minerals, and of all rights to work.

minerals, and of all mineral way-leaves. It is assessed on the proprietor where he works the minerals, or in any other case, on the immediate lessor of the working lessee. Common clay, common brick clay, common brick earth, sand, chalk,

£298,982. It is to be observed that the yields were small in most cases owing to the uncertainty created by the High Court judgment in the case of Dyson v. Attorney-General, which decided that the form (called Form IV.) sent out by the Commissioners and requiring owner-occupiers, under a penalty for refusal, to state the annual value of their land, was ultra vires. The result was that millions of forms returned were useless, and a fresh form had to be drafted. The Commissioners now state that this valuation is progressing favourably, and that up to March 31, 1912, some 3,637,955 acres had been valued, and the estimated 'total value' was the estimated total value was £614,605,705. But the total number of hereditaments to be valued is estimated at 11,000,000, of which only 2,218,317 have been valued so far. See Cox-Sinclair and Hynes, Land Values, 1910; Dowell's Income Tax Laws; Konstam's Law and Land Values, 1910.

Lane, Edward William (1801-76), an English Arabic scholar, began life as an engraver, but finding this profession too much for his health went abroad to Egypt (1825-28). On this occasion he explored the Nile and filled his portfolio with sketches. Davian his coronal ricit (1823-25) he mma mea ms portiono with sketches. During his second visit (1833-35) he made Cairo his centre. Later (1842-49) he spent serven years in Egypt and conducted himself in every way like a true Oriental. Most of his time was spent in laborious research, of which the chief fruit was his monuental Arabic, lexicon (1863-71mental Arabic lexicon (1863-74), which he was obliged to leave unfinished at his death. It is based on the careful compilation of Sheikh Murtada, who lived in the preceding century. Other of L.'s works are:
Modern Emptians, 1836, and a

in 1851, he was appointed chief examiner in the patent office. From 1869 till his death he held a responsible position in the bureau of weights and measures. In 1870 he published his Theoretical Temperature of the Sun. Here he expounded his law that a gaseous mass, kept in equilibrium by the mutual gravitation of its parts, actually rises in temperature as it contracts, as it gains more heat by the contraction than it loses by radiation.

Lane, Richard James (1800-72), a line-engraver and lithographer, was elected an associate of the Royal Academy as early as 1827, the distinction being largely due to the excellence of his ' Red Riding Hood. Another famous after Lawrence. line-engraving of his is a portrait of Princess Victoria at the age of ten (1829). His finest lithographs include portraits of George IV.'s cycle after Lawrence, and reproductions of the paintings of Landseer. Chantrey expressed admiration of his statue of Edward Lane (a brother).

Lanercost, a parish of N.E. Cumberland, England. Traces of the Roman wall are to be found. Lanercost Priory, founded in 1169 by Robert de Vallibus, governor of Carlisle, now forms part of the Church of St. Mary Magdalene. It is historically interesting. The Chronicle of Lanercost, 1201-1346, an important his

cosi, 1201-1040, an important instruction authority, was composed at Carlisle. Pop. (1911) 1128.

Lanfranc (c. 1005-89). Archbishop of Canterbury, born at Pavia, where he was educated for a legal profession. In 1039 he founded a school at Avranches, but three years later entered the Benedictine monastery

Lang, Andrew (1844-1912), a British man of letters, born at Sel-kirk in Scotland, and educated at the Edinburgh Academy, St. Andrews University, and Balliol College. University, and Balliol College, Oxford. He took a first class in the final classical schools (1868), and was elected a fellow of Merton College. He then entered on a literary career, and soon established a reputation of being one of the most versatile of modern journalists. His earliest pubmodern journalists. His earliest publication was a volume of dainty and graceful verse. The Ballads and Lyrics of Old France (1872), which were followed by Ballads in Blue China, 1880; Helen of Troy, 1882; Ballads and Verses Vain, 1884; Rhymes à la Mode, 1884; Grass of Parmagent, 1888; and Wer Grass of Parnassus, 1888; and New Collected Rhymes, 1905. His delightful selections of fairy tales began in 1889 with the publication of the Blue Fairy Tale Book, followed by others, all tastefully bound and illustrated, and written with classic simplicity, down to the Olice Fairy Book (1907). In the to the Once Fary Book (1997). In the realm of folklore, Mr. L. produced sound scholarly work in his Custom and Myth, 1884; Myth, Literature, and Religion (2 vols.), 1887; and contributed to the study of primitive religion and anthropology in The

lision and anthropology in The Making of Religion, 1898; Magic and Religion, 1901; Social Origins, 1903; The Secret of the Totem, 1905.

As an historian Mr. L. was keenly interested in mysteries, to the unravelling of which he brought great ingenuity as well as a scholarly accuracy in detail. He brought fresh light to bear upon Mary of Sociland in The Mustery of Mary Stuart (1901). in The Mystery of Mary Stuart (1901). and Portraits and Jewels of Mary Stuart. He also contributed to the Arranches, but three years later entered the Benedictine monasters of start. He also contributed to the at Bec and was chosen prior in 1046. He defended the doctrine of transubstantiation in the controversy raised by Berengar, afterwards publishing his theories in a tract De corpore of the sanguine Domini (1079). William of Normandy appointed him prior of an abbey at Caen (1062), and after the collection of Pickle (1898), Prince Conquest created him primate of England (1070), L.'s works were published in 1901. His other histendam (1070), L.'s works were published in 1901. His other histeriam (1849) and Crozals (beginnin 1900). Mr. L. was also a classical scholar of high standing, was expelled from the studies, Homer and the Epic (1893), College of Chambéry because he Homer and his Age (1900), in his masters, and later studied law at Moschus (1880), The Homeric Hymns College of Chambery because he Homer and his Age (1900), in his attacked the Jesuits, his school-translations of Theoretius, Bion, and musters, and later studied law at Mo-chus (1880), The Homeric Hymns Grenoble and Turin. His L'Eglize et (1899), and in collaboration with les Philosophes an XVIIIe Siècle S. H. Butcher, of the Odyssey (1879), (1855) and his Essai sur la Révolution and with E. Myers and Walter Leaf française (1857) at once gave him a of the Hind (1883). In 1888 he was position among contemporary men of elected the first Gifford lecturer of letters. But his magnum opus was his the University of St. Andrews. He Histoire de Napolion I. (1867-75).

the works of Scott, Burns, andi Dickens, and the Life and Letters of J. G. Lockhart and Sir Stafford Northcote. He was at one time literary editor of Longman's Magacine, and up to the time of his death various othe writings, of a each in its

merit, are too numerous to mention. Lang, Cosmo Gordon (b. 1864), Archbishop of York, son of the late Very Rev. John Marshall Lang, D.D., principal of Aberdeen University. Educated at Glasgow University and at Balliol College, Oxford, he became a law student of the Inner Temple, and was ordained priest in 1891. was curate of Leeds from 1890 till 1893, when he returned to Oxford as fellow and dean of divinity, Mag-dalen College (1893-96), and vicar of St. Mary's (1894-96). In 1896, Lord Salisbury appointed him vicar of Portsea, where he laboured till 1901, when he was appointed Bishop of Stepney and Canon of St. Paul's, In 1908 he was appointed to the arch-bishopric of York. His publications include: The Miracles of Jesus, as Marks of the Way of Life, 1900; The Parables of Jesus, 1906; The Opportunity of the Church of England, 1906. Lange, Johann Peter (1802-84), a German biblical excepte, the son of a peasant of Sonneborn. After study-

peasant of Sonneborn. After studying theology at Bonn, he was Protestant pastor to several parishes, and in 1854 accepted the chair of theology in his old university. Six years later he was appointed counsellor to the consistory. His first work of importance was Das Leben Jesu (3 vols. 1844-47), which was followed by the Christliche Dogmatik (3 vols. 1849-52), and his Grundriss der Christlichen Ethik (1878).

Langebek, Jacob (1710-75), a Danish Langebee, acco 1, 10-10, a Damsa, historian, early applied himself to the study of history. His excellent translation of the Icelandic Kristnisuga brought him under the notice of Gram, who employed him in the royal library as his literary assistant. In 1748 L., following in Gram's footestars became record-kroper. Founder steps, became record-keeper. Founder in 1744 of the Society for the Improvement of the Danish language, he assisted in the popularising of philology, but his most valuable work was connected with Scriptores rerum Danicarum, an exhaustive collection of medieval records, which owed not a little to his assiduous research.

Langeland, or Long Island, a Danish poetry. His most important work is island in the Great Belt between the translation of Piutarch's Lives. Finen and Laaland, has an area of written in conjunction with his 106 sq. m. It is cultivated, and exports corn, flax, and timber, dairy Langkat, a port on the N.E. coast produce, and fish. Rudkjöbing on the of Sumatra, near the frontier of

W. coast is the chief town. 20,335. Pop.

Langenbielau, a tn. in Silesia, Prussia, consists of five contiguous villages, Gross, Klein, Nieder, Ober, and Mittel L., 3 m. S.W. of Reichenbach. The chief manufs. are cotton and woollen goods, and there are limestone quarries. Pop. 18,864.

Langendreer, a com. in the prov. of Westphalia, Prussia, 7 m. S.W. of Dortmund. Pop. 26,390.
Langensalza, a tn. in the prov. of Prussian Saxony, is 13 m. N.W. of Gotha. The chief manufs. are textiles machinery, bricks, tobacco, and tin. In the neighbourhood are sulphur springs. The Prussians defeated the Hanoverians here (1866). Pop. 12,667.

Langenthal, a com. in the canton, and 24 m. N.E. of Bern, Switzerland: is a health resort, with mineral springs. Pop. 5948.

Langerfeld, a vil. in Westphalia, Prussia, is 21 m. E. of Barmen. It manufs. machinery, buttons, and lace. Pop. 14,801.

Langham, Simon de (c. 1310-76), Archbiehop of Canterbury, born in Rutlandshire. He became prior and abbot of Westminster in 1349, and abbot of westminster in 1949, and carried out important works in the Abbey, including the completion of the cloisters. In 1360 he was appointed treasurer of England, in 1362 elected Bishop of Ely, and in 1363 became chancellor. His period of office was marked by stricter legislation against the papal jurisdiction, and it is significant that he opened the parliaments of 1363 and 1365 by speeches delivered in English. In 1366 he was chosen Archbishop of Canterbury, and during his primacy is said to have removed John Wyclif from the headship of Canterbury Hall. This pleased the pope, and in 1368 he was madecardinal, leaving Englandin1369 for Avignon where he died. His tomb is the oldest in Westminster Abbey.

Langholm, a market tn., Dumfries-shire, 22 m. N. of Carlisle. Langholm Lodge, close by, is the seat of the Duke of Buccleuch. It has fumous sheep fairs, tanneries, and a distillery. It is noted for its tweed. Pop. (1911) 2930.

Langhorne, John (1735-79), a poet, born at Kirkby Stephen, Westmorland. He was educated at Appleby and Cambridge, and after illing several curacies became rector of Blagdon, Somersetshie, Perfett, and wrote for the Monthly Review, and published several volumes of popular

exports are tobacco and petroleum. Langland, William (c. 1332-c. 1400),

an English poet, the probable author of the allegorical alliterative poem, The Vision of Piers the Plouman and of Richard the Redeless. The Vision exists in about forty MSS., but there are three distinct versions known as are three distinct versions known as the A. B. and C texts, each of which is divided into prologues and passus, and consists of a Vision of Piers the Plowman and a Vision of Dowell, Dobetter, and Dobest. B is nearly three times the length of A, and C contains a few hundred lines more than B. The cridence of the with The evidence as to authorthan B. The evidence as to authorship is drawn almost entirely from ship is drawn almost entirely from internal evidence. In B xv. 148 is the line, 'I have lyued in lond, quod I: my name is longe Wille,' and the Dublin MS. contains an entry concerning 'pater Willielmi de Langlond qui . . morbatur in Schiptone under Whiewoode . . . qui prædictus Willielmus fecit librum qui vocatur Perre Pleurelmon'. Thus it is tur Persy Ploughman.' Thus, it is deduced that William L. is the author and lived at Wychwood in Oxfordshire, near the Malvern Hills, which are frequently mentioned in the poem. From the references to current texts. His theory was attacked by M.

Jusserand and by R. H. Chambers, and is not now generally accepted.
The standard edition of Piers Plouman is that of Skeat (2 vols., Clarendon Press, 1886; new ed. 1905).

Langley, Samuel Pierpont (1834-1906), an American astronomer, born at Roxbury, Boston, Massachusetts, U.S.A. He was appointed professor of mathematics at the U.S. Naval Academy (1866), director of the Addedny (1866), director of the Loire, Lozere, Ardeche, Aude, Tarn. (1867-87), and secretary to the Garonne.

Smithsonian Institution, Washington, (1887-1906). He made a special study of neronautics.

Atcheen. At the entrance to the in 1881, the new spectrum, an extenharbour is a dangerous bar. The chief sion of the invisible infra-red rays.

He also observed the total solar eclipses of 1869, 1870, and 1878. Langnau, a com. in the canton and 16 m. E. of Bern, Switzerland. It

nanufs. cheese, thread, and all kinds of woodwork. Pop. 8511.

Langreo, a tn. of Spain in the prov. of Oviedo. It is a hilly agricultural and fruit-growing place, and is also noted for its coal mines and iron industries. Pop. 19,000.

Langres (ancient Andematunum), a truit the dept. of Haute-Varne.

tangres (uncient Andermanning, a tra. in the dept. of Haute-Marne, France, 40 m. N.E. of Dijon. It is strongly fortified, contains a fine cathedral, and interesting Roman remains. Diderot was born here. It is celebrated for its manuf. of fine cutlery. Pop. 9800.

Lang-son, or Langshön, a tn. of Tongking, French Indo-China. It is 82 m. N.E. of Hanoi in the centre of a small plain on the Sunchi Kianr.

Langton, Stephen (c. 1150 - 1228), Archbishop of Canterbury, has ren-dered his life of vicissitudes famous by the strong stand he made on the side of liberty, whether king or pope were the oppressor. In the University of Paris he attained to a high poem. From the references to current events, A must have been written by taste. A must have been written by theology and philosophy, and in 1862, B by 1376-77, and C by 1392, or 1297 was consecrated to his archpossibly 1398. Dr. Skeat has argued that L. also wrote the alliterative thus ignored the rival candidates. It poem on Richard II., in which case heen assumed that the B and C texts ing in St. Paul's (1214) he urged the were later productions of A and written by the same hand, until Protessor Manley, in his article in the Cambridge History, argued that the poem was the work of at least five poem of this proficiency in theology and philosophy, and philosophy, and philosophy, and in theology archeration of his proficiency in theology and philosophy, and philosophy and philosophy and philosophy and philosop rank by reason of his proficiency in ertain as he flouted papal authority with three regard to the excommunication of by M. those barons who had fought for freedom.

Languedoc, a former province of France, which became united under one authority about the beginning of one authority about the beginning of the 13th century. The name is Pro-vencal and means 'the tongue of 'oc,''' 'oc' being the southern form of the northern 'oui' (yes). In 1791 it disappeared, being replaced

Smithsonian institution, washington (1857-1906). He made a special study Huguenot, writer and diplomatist, of aeronautics, and succeeded in born at Vitteaux in libraryndy. He showing the feasibility of mechanical studied at the universities of Politers, flight. He carried out his experis Bologna, and Padua, and spent much ments on the Potomac R., and after time in travelling through France, making several attempts with various Haly, Spain, Germany, Sweden, Finselling Global of every half a mitaliand, and Lanland. In 1559 he carried machines, flights of over half a mile land, and Lapland. In 1559 he en-were made in 1896. L. invented the tered the service of Augustus I., bolometer, with which he discovered, Elector of Saxony, and showed great

He represented the elector at the French court (1561-72), and was with him at the siege of Gotha (1567), nim at the siege of Gotha (1306), about which he wrote Historica Descriptio. His speech on behalf of the Protestant princes in 1570, before Charles IX. of France, nearly cost him his life, and he narrowly escaped death on St. Bartholomew's Day, 1578, the weart the inverse of courts. 1572. He was at the imperial court as representative of the elector (1573-77). after which he spent most of his time in the Netherlands. His writings, which consist chiefly of letters to Augustus of Saxony, the chancellor Mordelsen, Camerarius, and Sir Philip Sidney, are important for the history of the 16th century.

Lanidæ, scc Shrike. Lanier, Sidney (1842-81), an American poet and prose writer, made an heroic struggle against the ravages of consumption, which finally mastered him. He graduated with honour from Oglethorpe College, and on the out-break of the Civil War joined the Confederate army. In 1864, whilst acting as a blockade runner, his ship

poems as The Marshes of Glynn and The Revenge of Hamish entitle him to the second place after Poe among the poets of the S., whilst the Science of English Verse (1880) exhibits his mastery over prose, and his Letters (1899) illustrate the charm of his personality and his Stevensonian pluck.

Lankester, Sir Edwin Ray (b. 1847), a natural historian, was a student at Downing College, Cambridge, and Christ Church, Oxford. Fellow and lecturer of Exeter College (1872), he accepted in 1874 the chair of zoology and comparative anatomy at University College, London. In 1890 he gave up his work in London, and for the seven years following, lectured on comparative anatomy at Oxford. His next appointment was the directorship of the natural history depart-ments in the British Museum (1898-1907). Founder and president (1892) of the Marine Biological Association, he held, in 1896, the vice-presidency of the Royal Society. Since 1869 he has edited the Quarterly Journal of Microscopical Science, and has issued a treatise (1900-9) besides numerous monographs on zoology.

ability in organising the Protestants, necticut, U.S.A. He graduated at He represented the elector at the Yale in 1871, was professor of Sanskrit at Johns Hopkins University, Baltimore (1876-80), and since 1880 at Harvard University. In 1889 he went to India and collected over 500 Sanskrit and Prakrit MSS, for Harvard. He was secretary and editor of the *Transactions* (1879-84), president of the American Philological Association (1889-90), corresponding secretary of the American Oriental Society (1884-94), of which he was elected vice-president (1897-1907) and president (1907-8). Among his publica-tions are A Sanskrit Reader and Vocabulary (1884-88), contributed to the Harvard Oriental Series, and many translations of Sanskrit and Prakrit dramas and stories.

Lannes, Jean, Duke of Montebello (1769-1809), a French marshal, was one of Napoleon's greatest generals:
'I found him,' said the emperor, 'a
dwarf, and lost him a giant.' Born of humble parents, he was bred to the dyer's trade, but in 1792 joined the army. No time was ever more ausacting as a blockade runner, his ship pictous for the rapid rise of any youth was captured, and for five months he was confined in a Federal prison. Here his fitte, which he had learned to among them being Montenotte, Milplay as a boy, helped to lessen the tedium of imprisonment. In 1873 he tallon, Montebello, and Marengo (800). Wertingen and Australia. 800), Wertingen and

805), Jena (1807), Tudela (1808), id Eckmühl (1809). The finest thing ever did, after his defeat of the Austrians at Montebello, was brilliant assault of Saragossa (1809). His fall at the battle of Essling was a disaster which Napoleon was the

first to appreciate. Lannion, a river port in the dept. of Côtes-du-Nord, France, on the Guer, 54 m. E.N.E. of Brest. It has a harbour, fisheries, and considerable trade. The manufs. are linen, leather,

rope, etc. Pop. 5800. Lanolin is manufactured by mixing three fluid ounces of water with seven ounces of neutral wool-fat, styled in pharmacy adeps lanæ, which is Latin for 'wool fat.' When sheep's wool is being prepared for spinning, 'brown grease' or 'degras' is extracted. After purification this is a clear oily substance, which is often compounded with vaseline or other ointments, as it is easily rubbed into the skin. Its commercial name is landlin. Many emulsions have this grease as one of their constituents.

Bow and it Hales-· his brief

career as a legislator he was some-Lanman, Charles Rockwell (b.1850), what of a 'stormy petrel.' He was an American Orientalist and professor noted for his almost single-handed of Sanskrit, born at Norwich. Con-opposition to the National Insurance Act, and for his championship of Pitt became premier, Earl Shelburne, Women's Suffrage, on which issue he as he then resigned (and lost) his scat.

Lansdown, an eccles, par, in the

2 m.

from the town. Pop. (1911) 2000.

Lansdowne, Henry Charles Keith Lansuowne, Henry Charles Kelth Petty-Fitzmaurice, fifth Marquis of (b. 1845), a British statesman, was a favourite pupil of Dr. Jowett at Balliol College, Oxford. When he first interested himself in politics he joined the Liberal party and served the government as Lord of the Treasury (1869-72), Under-Secretary for War (1872-74), and Under-Secretary for India (1880). In 1888, after holding the office for five years, be gave up the Grand India (1890). he gave up the governor-generalship of Canada, and became viceroy of India (until 1893). When Mr. Glad-stone introduced Home Rule for Ireland, he went over to the Liberal-Unionist party. From 1895 to 1906 he was once more a member of the cabinet, at first as Secretary for War (until 1900), and afterwards as Foreign Secretary. Since Lord Salisbury's death he has been Unionist leader in the House of Lords. In 1894 he became a trustee of the National Gallery.

Lansdowne, Henry Petty - Fitz-Maurice, third Marquis of (1780-1863), Henry Petty - Fitzan English statesman, one of the most prominent and influential bers of the Whig party in his time. ners or the Whig party in his time. A fellow member with Brougham and Sidney Smith of the Speculative Society of Edinburgh, he left the university of that city and went to Trinity College, Cambridge, where he graduated as M.A. in 1801. Having early enter a member of

a member of

ministry of 'Al. In Talons (1800-1).
Throughout his public life he was a zealous advocate of Free Trade, the abolition of slavery, and Catholic emancipation. It was his enlightened views on this last question which lost him his seat for Cambridge University (1807). President of the Council from 1831-41, and again from 1846-52, he assisted in the passage of the Reform Bill (1832), and refused the premiership and a dukedom. Lansdowne, William Petty, first

Lansdowne, William Petty, first Marquis of (1737-1805), an Irish states-man, attended Christ Church, Oxford, and later joined Wolfe's regiment. In 1760 he rose to colonel, having greatly distinguished himself during the Seven Years' War at Minden and Kloster-Kampen, and in the same

ship of sta years later

1. It in a policy and is American take in 1782 he

tion of Fox and North secured his speedy downfall.

Lansford, a bor. of Pennsylvania, U.S.A., in Carbon co., 4 m. N.E. of Tamaque. It has important coal mines. Pop. (1910) 8321.

Lansing, a city of Michigan, U.S.A., in Ingham co., situated on elevated land on both sides of the Grand R., 68 m. S.S.W. of Bay City. It is an important manufacturing centre, owing to its fine water power, and has a state blind school and agricultural college. Pop. (1910) 31,229.

Lansingburg, a tn. of New York, U.S.A., in Rensselaer co. It is situated on the Hudson R., opposite the mouth of the Mohawk R. There are manufs. of brushes, oil-cloth, clothing. It now forms part of Troy.

Lantern, in architecture, an ornamental turret erected on the roofs or domes of churches for the purpose of ventilating and giving light. They are most commonly octagonal in shape and with glazed or unglazed windows. Lanterns may be found in England, at York and Ely; in France, at Coutances and St. Ouen; in Spain, at Salamanca.

Lantier, Etienne François de (1734-1826), a French writer, born at Marseilles. His comedy, L'Impatient, which appeared in 1778, met with some success, and thus encouraged, L. threw himself into literary work with great ardour. His Voyages d'Anténor, for which he collected materials from the Academy of Marsellles, was enor-mously popular, and was translated into many European languages. His other w. en Suisse, respondar nd Geoffroz,

poem in eight cantos, composed at the age of ninety-one.

Lanuvium, or Lanivium, an ancient city of Italy, situated about 20 m. S.E. of Rome, and southward of the Via Appia. It stood upon a hill, from which was obtained an extensive view of the surrounding country, and had a celebrated temple of June. The present village is noted for its vineyards.

Lanza, Domenico Giovanni Giuseppe Maria (1815-82), an Italian politician, practised medicine for some time at Kloster-Kampen, and in the same his native place, Casale in Piedmont year entered parliament. In his He played a considerable part in the principles he was closely associated institution of the agrarian society of with Pitt, whom he supported on the Turin, and also in the revolution of question of Wilkes' expulsion. When 1848. Having supported the policy of 393

Cavour in the Piedmontese parlia- her husband on his second journey ment, he served (1855 and 1858) in down to Hades. the cabinet of that minister, and in 1860 (and again in 1869) became president of the Chamber.

order being suppressed, he became keeper of the galleries of Florence (1775), and henceforward devoted his life to literature and the study of antiquities. His Storia Pittorica della Italia (completed in 1796) has been widely translated, and in that it was the first attempt to treat the schools of painting with historical sequence, is à landmark in art criticism. wrote also on the language and vases of ancient Etruria.

Laong, a tn. and port of Luzon, Philippine Is., in the prov. of lices Norte. It is situated on the Laong R., and includes the municipality of San Nicolás. There is a shipping trade in rice, Indian corn, sugar, and tobacco; cotton is extensively grown in the

district. Pop. 36,000. Laocoon, in Greek legend, a priest of Apollo, who incurred the anger of that deity by his marriage and also by the solemn warning he delivered to the Greeks against admitting the treacherous wooden horse within the walls of Troy. Accordingly the vin-dictive god drove two huge serpents out of the sea to the altar of Poseidon at which L. with his two sons was officiating. The ghastly story of their death agonies, as the monsters coiled themselves about their limbs, forms one of the most tragic and vivid episodes in Virgil (Encid, ii. 11. 199 ct seq.). The contortions of father and sons are further illustrated in the famous 'Laocoon' group of the 'Laocoon' group of the which was discovered in Vatican, 1506 near the baths of Titus. Pliny tells us it was fashioned by three Rhodian soulptors, Polydorus, Agesander, and Athenodorus. Curiously enough, Lessing, when in his Lackoon he was discussing the limits of sculpture and poetry, chose this group as a type of excellence in statuary, although archæologists now agree in assigning it to the decadent period of Greek art.

Laodamia. a pathetic figure Greek heroic legend. She was the daughter of Acastus and the wife of Protesilaus. When her husband was struck down by a Trojan and slain in the very act of landing from his vessel, she prayed the gods to him to life, if only for three him to life, if only for three The boon was granted, but, as The boon was granted, but, as poles, elected by the worth tells. L. died and went with people. The population consists of

Laodicea, the name of several cities became most of which were founded by the L. was Seleucid kings of Syria. The founder f the dynasty, Seleucus, is supposed o have named five of them after his aother, Laodice. The chief cities so alled are: 1. Laodicea ad Lycum, on he banks of the Lycus in Phrygia,

m. S. of Hierapolis. It is supposed to have been founded by Antiochus II. (261-246 B.C.). It is famous as one of the seats of early Christianity, and, being favourably placed on the road leading from the Ionian cities to the Euphrates, it became a great com-mercial centre. In early times there was a medical school here, and a school of Sceptic philosophers. It was destroyed by an carthquake during the reign of Nero, but was rebuilt. Afterwards its prosperity declined owing to Turkish invasions, and it is now a pile of ruins, known as Esk-Hissar. 2. Laodicca Combusta, in Lycaonia, on the borders of Phryria and Pisidia, modern Sorgan Ladik. 3. Laodicca ad Mare, named by Se-leucus Nicator about 300 B.C. It is on the coast of Syria, about 75 m. N. of Tripoli, modern Latakia. Consult W. M. Ramsay's Citics and Bishoprics of Phrygia, 1895-97.

Laomedon, the son of Ilus, and the father of Priam, appears in Greek legend as King of Troy. Poseidon built his city walls and Apollo tended his flocks. But the faithless ruler denied them their hire. Accordingly the sea-god despatched a dragon to lay wasto his country, and Apollo sont a plague. Finally, L. was slain The demi-god had by Heracles. rescued the king's daughter, Hesione. who was to have been sacrificed to Poseidon, and had not received the promised reward.

Laon, a city of France and cap. of the dept. of Aisne, situated on a limestone rock, rising 650 ft. from the plain. On March 1814 a battle was fought here between the allies under Blucher and Napoleon I., the latter being defeated. L. was a place of importance under the French kings. The manufactures are nails, leather, earthenware, biscults, etc., and there are numerous vineyards. Pop. 15,000.

Laos, a general term for the French of Central territory Indo-China. The country is watered The country is watered by the Mekong and its affluents, the Nam-Hon and Nam-To and the Namand Salwin. The French protectorate dates from 1893. The country is divided into twelve provinces, the greats of each being administered commissioner, assisted

lobles, elected by the

The most important industry is cattle-raising. Area 100,000 sq. m. Pop. 650,000. See Gosselin, Le Laos et le Protectorat français, 1900, and L. de Reinach, Notes sur le Laos, 1906. Lão-Teze, a Chinese philosopher, was the author of Tão Teh King, a treatise not half as long as the Gospel of St Mayl, rat one which has even

of St. Mark, yet one which has exercised the interpretative faculty of many learned commentators. According to Sze-ma Ch'ien (c. 100 B.c.) L. was born in 604 B.c. and was keeper of the royal library at the court of Chow in the province of Ho-nan. In 517 B.c. he had an interview with Confucius, and in his old age, when the dynasty he served was growing weak, he left the royal domain and went into 'the regions beyond.' 'The Venerable Philosopher'—for such is one meaning of his name—taught the beauty of action free from selfish motive and having as an end only its own accomplishment: the world must own accompliament; the word must roll on 'without striving or crying,' according to Tâo, which is the 'Way' or 'Word' (compare Logos of the N.T.). He inculcates the virtues of compassion and humility and the Christian doctrine of requiting good for evil, yet he was ever looking away from culture and back to the days of barbarism for his ideals. The polytheistic Tâoism has little to do with his ethics.

La Pampa, a ter. in the Central Argentine Republic, bounded by the Rio Colorado on the S. The surface is varied, with extensive forests, numerous streams and lakes, and fertile pasture lands. The capital is Acha. Area 56,300 sq. m. Pop. 90,000.

Laparotomy, in surgery, the opera-tion of cutting through the abdominal wall, particularly by way of the flank or loin. It is frequently performed in order to enable the surgeon to discover by feeling the real cause of an intestinal disorder, and in the hands of a capable operator is not dangerous.

La Paz: 1. A dept. of North-Western Bolivia. An extensive plateau forms the N. portion, while it is mountainous in the S. Only potatoes, barley, and quinoa grow in the west-tern regions, which are watered by the Titicaca, and include part of Titicaca. Lake. Eastward wheats, Indian corn, and fruits grow in plenty, whilst southward tobacco, sugar - cane, southward tobacco, sugar - cane, cacao, oranges, and other tropical products are freely cultivated. Illi- (1749-1827), a French mathematician mani Sorata and other lofty peaks and astronomer, born in humble circrown the Cordillera Real, whose cumstances at Beaumont-en-Auge.

Thais, Khas, and various mixed Indian and Chinese races. The chief Indian and Chinese races. The chief Indian and Chinese races. The chief Indian copper ton, rice, maize, and indigo. Gold, copper, tin, etc., are found, but are not exploited to any great extent. The most important industry is cattled. The celebrated Corocoro copper mines lie near the Desagnadero R. whilst the profitable tin mines of which is cattled to the celebrated Corocoro copper mines lie near the Desagnadero R. whilst the profitable tin mines of which is cattled to the celebrated Corocoro copper mines lie near the Desagnadero R. whilst the profitable tin mines of the color of the col whilst the profitable tin mines of Huayna Potosi and Chocoltaga are within easy distance of La Paz, the capital. Area 53,777 sq. m. Pop. (1910) estimated at 516,914. 2. A to. on the Rio de la Paz, 30 m. S.E. of Lelea Titicaga. It was founded in of Lake Titicaca. It was founded in 1548, and since 1898 has been the capital of Bolivia. It lies 12,120 ft above the sea, and has a short and cold summer season, which accounts for the prevalence of pneumonia and other lung diseases. The cathefor the prevalence of pneumonia and other lung diseases. The cathedral was begun in the 17th century and is still unfinished, although La Paz has been the seat of a bishop since 1605. The town is connected by rail with the Pacific by two lines. Pop. 78,856. 3. A tn. in the Entre Rios prov. of Argentina, situated on the Paraná, 530 m. N. by W. of Buenos Ayres by river. Pop. 9000. 4. A tn. on the Rio Tumuyan, 75 m. S.E. by E. of Mendoza in Argentina. Pop. 4000. 5. The cap, of Lower California, Mexico. The tn. is tastetully fornia, Mexico. The tn. is tastefully laid out, has an excellent harbour in the bay of La Paz, and does consider

able trade in silver and agricultural produce. Pop. (1910) 5500.

Lapis Lazuli, a highly prized ornamental stone of an azure colour, the sapphire of the ancients. A favourity the Terrational Compulets. stone with the Egyptians for amulets and ornaments, such as scarabs, and also used by the Assyrians and Babylonians. L. L. usually occurs in compact masses of a granular structure; the mineral is opaque, with structure; the inineral is opaque, was slight transparency at the thin edges. It has a hardness of 5 to 5.5 and a specific gravity of 2.45. Mosaics, engraved gems, vases, and other ornaments have been made from L. L., and it is especially esteemed in Italy and Russia, where magnificent examples of its decorative use are to be seen in the columns of St. Isaac's Cathedral, St. Petersburg. L. L. occurs in Badakshan, part of Siberia,

and in the Andes.

Lapithæ, The, were a mythical race of people inhabiting the mountains of Thessaly. Pirithous, son of Ixion, and half brother of the Centaurs, governed them. The legend runs that upon his marriage with Hippodamia, the Centaurs tried to carry off his bride and the other women. A ferce battle ensued, in which the L. were victorious. A symbolical meaning has been attached to this struggle, typifying the conflict between the Greeks and Persians.

Laplace, Pierre Simon, Marquis de (1749-1827), a French mathematician

du Monde, in which he stated the chief astronomical facts and theories, and in a note at the end expounded his famous nebular hypothesis. His Traité de Méchanique Céleste made him world-famous. Apart from his extra-ordinary analytic skill and far-sighted scientific segacity, L. had a pure literary style which places his works on a level with Newton's Principia.

His other treatises include Théorie and Théorie lités, 1812-20.

were issued See Fourier's

Eloge, 1831, and Arago's Annuaire du

Bureau des Long, 1844. Laplace's Equation, a partial differential equation in connection with the theory of attractions dis-covered by P. S. Laplace. By his discovery that the attracting force in discovery that the attracting force in any direction of a mass upon a particle could be obtained by the direct process of differentiating a single function, he made an important addition to every branch of physics, and more particularly heat, electricity, and magnetism. C. F. electricity, and magnetism. C. F. Gauss employed it in the calculation of the magnetic potential of the carth, and Clerk Maxwell's interpretation of harmonies with reference to poles on the sphere threw new light upon it. See Spherical HARMONICS.

Lapland, the name applied to an extensive region of Northern Europe, inhabited by the Lapps. It has no political existence, and covers territory in Norway, Russia, and Sweden, the first and the last portion con-sisting of bold headlands and fjords, sisting of bold headlands and fjords, Clamabue in design. His gradeop glaciers, long mountain lakes, work is the Duomo or Cathed and lake-fed rivers. Russian L. is similar to the low-lying parts of Swedish L., but the surface is more level; marshes and the barren tundras of the Arctic Ocean become more frequent, and forests of fir and spruce trees abound. The climate is of a typical Arctic nature. For seven or eight weeks in winter the sun does not rise above the horizon and comnot rise above the horizon and comparative darkness prevails except when the aurora borealis illuminates the snow-covered landscape. The cold is excessive. The summer lasts during three months, and is comparatively hot. L. gives little scope for husbandry, but the fisheries are important and the entrance site Macao.

near Trouville, Normandy. As a Lapps mostly live a nomadic life, youth he taught mathematics in a military school at Beaumont, and in 1767, through the influential assistance of D'Alembert, was appointed professor of mathematics in the acting as a beast of burden. Short-Ecole Militaire, Paris. In 1796 he ness of stature is their chief charpublished his Exposition du Système; acteristic, and they have high cheekdu Monde in which he stated the chief bones, wide mouths, small clongated. bones, wide mouths, small clongated eyes, and snub noses. They are a quiet, inoffensive people, and crimes of violence a" Their imagin

Their imaginand they are religious impressions of a sensational character. Their early reputation for divination and maric is not yet extinct in Finland. Modern civilisation and according them in the maric is the constant of the constant tion is nowadays affecting them in many ways, and they all profess Christianity. The number of Laplanders is not supposed to exceed 30,000—about 20,000 in Norway, 7000 in Sweden, and the rest in Russia Russia. From the 13th to the 17th century they were practically in a state of slavery under the Swedish adventurers, the Birkarlians, but at the present they are treated with kindness and consideration by both fooding right and consideration. Scandinavian governments.

Scandinavian governments. See G. von Düben, Om Lappland och Lapparne, 1873; Sir A. de Brooke, A Winter in Lapland, 1827; and E. Rac, The White Sea Peninsula, 1882. La Plata, the cap. of the prov. of Buenos Ayres, Argentina, 30 m. E.S.E. of the city and 5½ m. from the const. with which it is connected by E.S. E. of the city and 54 m. from the coast, with which it is connected by railway and the port Ensenada. It was founded in 1882, and has grown into a city with a population of about 95,000. It has fine government buildings, theatres, a library, and a raccourse, also a large museum rich in geological and archaeological collecgeological and archeological collections.

Lapo, Arnolfo di (c. 1232 - c. 1300), an Italian architect and sculptor, born near Florence, the pupil of Ciamabue in design. His greatest work is the Duomo or Cathedral of Florence, left unfinished, and he also began to erect the church of and the is to be seen

basilica of Lives of the

' · · diana in La .ted 46 m. e are beautiful takes to the A. or the city, and it is frequented as a summer resort.

Pop. (1910) 10,525.

Lappa, a treaty port of China, at the entrance of the Canton R., oppo-

portant, and there are extensive Lappmark, the name of five discopper mines and iron deposits. The tricts or marches in N. Sweden

testator. Lansed legacies fall into the be the subject of L. residuary estate.

residuary escate.
Lar, or Laar, the cap. of the prov.
of Laristan, Persia, 120 m. W.N.W.
of Bender Abbas. Manufs. tobacco,
cotton, silk, etc. Pop. 10,000.
Lar, or Lars, an Etruscan word
meaning lord, king, or hero. It was

employed as a prænomen and borne by Porsena (Lars Porsena of Clusium), Tolumnius, and others. See Müller and Deecke's Die Etrusker, 1877.

Laraiche, or El Araish (the garden of pleasure), a fortified scaport town of Morocco in Africa, overlooking the Atlantic Ocean, 45 m. S.S.W. of Tangier. There are ten military forts. The town has a spacious market-place. Pulse, beans, wheat, wool, hides, and wax are exported. Pop. 15,000.

La Ramée, see OUIDA. Laramie: 1. The cap. of Albany co., Wyoming, U.S.A., 40 m. N.W. of Cheyenne on the Union Pacific Railway. Has an altitude of 7000 ft., and is enclosed by mountains and in the midst of picturesque scenery. Contains the Wyoming University, and has manufs, of glass, leather, flour, etc. Pop. (1910) 8237. 2. A river in Colorado, flowing N.E. river in Colorado, nowing through South-Eastern Wyoming; about 200 m. long, and drains part of Laramie county.

Laramie Strata, appearing in the intermediary age between the Cretaceous and Tertiary, containing seams of lignite. They are well developed in Utah and Wyoming.

Larbert, a par. and vil. of Stirling: shire, Scotland, on the Carron, 8 m. S.E. of Stirling. Coal-mining is ex-tensively carried on. Pop. (1911) 1500.

Larboard, an obsolete nautical term, referring to the 'port' or left hand side of the ship facing the head, while starboard refers to the right hand side.

inhabited by Lapps. They are known, wrongful taking possession of the under the names of Asele, Umea, goods of another against his will and Pitea, Lulea, and Tornea, and cover with the intention of depriving the an area of 44,667 sq. m. Pop. 6800 owner of his property in them. L (all Lapps). an area of 44,667 sq. m. Pop. 6800 owner of his property in them. L. Lapps, see LAPLAND.
Lapps, see LAPLAND.
Lapse. A device of real estate and a bequest of a legacy are said to L. where the devisee or legatee died in public servant. L. is distinguishable the lifetime of the testator. But by from: (a) False pretences, in that the Wills Act, 1837, no L. occurs: possession only is obtained, while in (a) When the donce is a child or other issue of the testators and dies leaving ally parts with his right of property in them. L. is either simple or compound, the latter simple or compound, the latter simple or compound, the latter being thet accompanied by circumstances of aggravation, e.g. a where the devisee or legatee died in public servant. L. is distinguishable from: (a) False pretences, in that the latter crime the owner intention issue of the testators death; and as well, although induced so to do by (b) when the gift is of an estate tail some false representation; and (b) (see Estate, Entral) and the tenant embezzlement, in that L. by a clerk of the composition of the compositi in tail leaves issue living at the or servant connotes the stealing of testator's death capable of inheriting property which at the time is in the under the entail. In both (a) and (b) actual possession of the master, while the property passes just as if the in embezzlement the property is donee had died immediately after the intercepted. Only personal goods can There were formerly a great number of things, like trees, plants, deeds, fixtures, coal from a mine, chattels real (q.v.), choses in action (q.v.), wills, animals feræ naturæ (i.e. wild or unreclaimed) and dogs, or other domesticated animals not ordinarily used for food, which at common law could not be the subjects of L. The theft of most of these things is now, however, punishable as for simple L., while the theft of coal or other ore from mines, wills, records, and deeds is met with much heavier punishment than L., that of wills being punishable to the extent of a life term of penal servitude. If the taking is bona fide under tude. If the taking is bond has under some colour of right, it might ground a civil action in trespass (q.v.), but would not be larcenous. If the goods are taken by a trick, the owner not intending to part with the ownership of the goods, it is L., e.g. A gets half a dozen pairs of boots sent to him ostensibly for the purpose of hypric and stopping and the buying one selected pair and then converts all of them to his own use. Welshing is a common form of L. by trick. To constitute L. there must be a complete physical taking (called asportation). This, however, is in law interpreted to mean merely that the goods must have been bodily displaced as distinguished from being merely handled, or if attached or connected in some way (e.g. watch and chain) completely severed. It is not essential that the taking be for the sake of gain, e.g. to take a man's motor car and run it into a deep river merely to spite him is L. if done with intent permanently to deprive the owner of his property. Larch, the common name given to species of Larix, a genus of coniferous

plants found in northern parts of the ship facing the head, while star-bard refers to the right hand side. plants are hardy trees, much re-Larceny, or Theft, the wilfully sembling species of *Cedrus* in habit,

but they are not evergreen, and the tween public and private L., the cones ripen in one year. The wood is latter being worshipped by families hard and tough, the leaves are bright green in colour and linear in shape, and the flowers are monœcious. Europæa, the common L., grows to a height of 100 ft., and is valued for its wood, its bark used in tanning, and for the turpentine which it yields. L. pendula, the black L., is common in America.

Lard, the fat of the hog melted down and strained, and the best quality is prepared from the leaf or fat of the bowel and kidneys. L. should contain about 60 per cent. of olein, and 40 per cent. of palmitin and stearin. Adulteration is frequently resorted to in the manufacture of this commodity, the stearin of beef or mut-ton being used. The best quality of L. is used for making eleomargarine, whilst the inferior sort is used for

making candles.

Lardner, Dionysius (1793-1859), an author, became professor of natural philosophy and astronomy in London University in 1827. He is best re-membered as the originator and editor of the Cabinet Cyclopadia, a collection of works by distinguished authors, which, started in 1829 and completed twenty years later, embraced 123 volumes. The contributors included John Forster, Mackintosh, Thirlwall, Scott, Moore, and L. himself. L. also edited a Cabinet Library (9 vols.), 1830-32, and the Edinburgh Cabinet Library (38 vols.), 1830-44. L. was the author of seventeen works, mainly on his special scientific subjects.

Lareau, Edmond (1848 - 90), a Canadian politician of French ex-traction, entered the bar in 1870, and was appointed six years later pro-fessor of law in M'Gill University. Ten years later he was elected to the provincial legislature. He wrote Historics of Canadian Law as well as Mélanges Historiques et Littéraires.

Laredo: 1. A city of Texas, U.S.A., and the cap. of Webb co., 150 m. S.S.W. of San Antonio. It is a garrison town, and a port of entry on the Rio Grande. There is considerable trade with Mexico, and the industries include smelting and car works, cattle Greeks. There are still evidences raising and fruit growing; it is of its Turkish occupation in the specially famous for early mosques, and Mahom-

and Bermuda onions. Pop. 14,855. 2. A fortified seaport

Spain, in the prov. S.E. of the cap., coach road to Bilb

ing district of the town and country in which they were situated. They had a special annual festival with public games. In the later period of the republic they are confounded with the Penates, though in earlier times there was a marked distinction between the two. The name scens to be identical with the Etruscan lar, king, lord. See G. Wissowa, Religion and Kullus der Römer, 1902.

Largo, a par. and market tn. of Fifeshire, Scotland, situated on Largo

Bay, 3 m. from Leven. The town consists of two villages, Upper Largo, con-Largo and Larghetto, an Italian term in music used as a direction for the characteristic and the control of the characteristics.

the style in which a piece of music is to be played. It is generally understood to mean slow, broad, solemn, but it rather indicates a dignified expressive style. Larghetto is the diminutive of largo, meaning a little quicker than the latter.

Largs, a par. and watering-place of N. Ayrshire, Scotland, situated on the Firth of Clyde, 12 m. S.S.W. of Greenock. There is a small harbour, which affords good anchorage for yachts. Pop. (1911) 3300.

Lari, a market tn. of Italy, in the prov. of Pisa, 14 m. N.E. of Leghorn. Pop. 13,000.

Laricio, see PINE.

Laridæ, see GULL. Larino, a tn. of Italy in the prov. Larino, a th. of Tarly in the prov. of Campobasso, on the R. Biferno. It suffered destruction by an earthquake in 1300. Pop. 7000.

La Rioja, see RIOJA.

Larissa, the chief the of Thessaly in

ancient Greece. It is now the cap. of the prov. of Larissa, and stands on the r. b. of the R. Salambria (ancient Peneus), and is 35 m. N.W. of Volo. L. was under Turkish authority until 1881, when it became ceded to the

grounds. L. lies not Iomeric Argissa, and name applied to other Pelasgian

it signified a fortified town or Pop. 16,000.

are manufactured, and fish preservation is carried on. Pop. 5750.

Lares, The, Roman tutclary deities, is Lar. It is for the most part desert originally gods of cultivated fields, land. Salt and silk form the chief worshipped by each household. From products. Area (est.) 20,000 sq. m. early times a distinction existed be-

Larivey, Pierre (c. 1540-1612), a | French dramatist, descended from the Giunta, the famous Florentine and Venetian printers. He became canon of the church of St. Etienne. His comedies were rather adaptations from Italian plays than works of creative art. His principal work, Comédies Facétieuses, appeared in

1579. Lark, the popular name given to the species of Alaudidæ, a family of passerine birds inhabiting the Indian, Palæarctic, and Ethiopian regions, Otocorys being the only American genus, and Mirafra the only Australian one. Alauda avensis, the familiar British skylark, nests in a bellow in the ground would near the state of hollow in the ground, usually among grass or cereals. Its rapid, pleasing trill is generally uttered while the bird is soaring, and occasionally it emits a plaintive call. A. arborea, the woodlark; A. cristata, the crested lark; and A. alpestris, the shore lark, belong to the same family.

Larkhall, a tn. of Lanarkshire, Scotland, 3 m. S.E. of Hamilton, with collieries, bleach-works, and a silk factory. Pop. (1911) 14,202.

Larkhana, a fortified tn. of Bombay, India, in the prov. of Sind and the dist. of Shikarpur. The surrounding country is probably the finest tract in Sind, and L. is a trade centre, with important manufs, of leather, cotton, silk, metal ware, and paper. 13,000.

Larkhill, the aerial station of the No. 3 Royal Squadron Flying Corps on Salisbury Plain, about 15 m. N. of Salisbury, Wiltshire, England.

Larkspur, see Delphinium.

Larnaga, or Larnaka, the principal port of the island of Cyprus, in the Mediterranean Sea. There is a pier 450 ft. in length, and excellent anchorage is afforded. The town is the ancient Citium, and numerous objects of antiquarian interestare to be found. Pop. 8000.

Larne, a par., seaport, and market tn. of Antrim, Ireland. The port has become one of the chief passenger ports of the country. The marketplace covers over an acre of ground, and there are linen and woollen and there are men and wooden manufs.; an extensive trade is carried on in lime, ironstone, flour, dairy produce, and linen. Pop. (1911) 6700.

La Rochefoucauld, François, Duc de la Rochefouca

(1613-80), most accomplished of the maxim and memoir writers of France, born at Paris. Bore the title of Prince de Marsillac. Joined the army at an early age, and soon began to make a figure in public life, becoming engaged in intrigues against Richelieu, and in the plots of the Fronde. He was severely wounded at the siege of Paris

Saint-Antoine in 1652. He then retired to the country for a short time, but returned to court before the death of Mazarin and became a prominent leader of the literary salon of Mme. de Sablé. In 1665 he published his famous Maximes anonymously, and under the title of Réflexions ou and under the title of Reflexions of Sentences et Maximes morales. They passed through five editions in the author's lifetime, and are as remarkable by their literary excellence as by their acuteness of thought. His Menoires were published in 1817, and are among the best of a time rich in writings of this kind. His Lettres are also of great historic and social interest. Rochefoucauld's Œuvres Complètes, edited by Gilbert and Gourdault, appeared in 1868-84. There are numerous editions of the Maximes, the finest being the Edition des Bibliophiles, 1870 (Eng. version by G. H. Powell, 1903). See Lives by Bourdeau and Hémon.

La Rochelle, see ROCHELLE, LA. La Roche-sur-Yon, formerly called Napoléon Vendée, a tn. and cap. of the dept. of Vendée, France, on the R. Yon, 40 m. S. of Nantes. Pop. 13,700. Larousse, Pierre Athanase (1817-75). a celebrated French lexicographer, born at Toucy. His fame rests principally on his Grand Dictionnaire universel du XIXe Siècle, a vast compilation of fifteen volumes of a discursive and entertaining rather scholastic and critical nature, which had an enormous success. He also his aim wrote various text-books, his aim being to aid the pupil to think for himself rather than to depend on his Other works are Nouveau memory. Dictionnaire, and Dictionnaire complet illustré. L. also founded a journal

of instruction, L'Ecole normale. Larva (Lat., a ghost, a mask), the name applied, first of all by Linneus, to the young form of any animal which has left the egg and which at that stage does not resemble the parent. It is given more particularly to insects, but refers also to tadpoles of frogs, nauplii and zoeæ of crustaceans, the young of echinoderms, etc. The larvæ of Orthoptera and Hemiptera bear a strong resemblance to the imago, or perfect insect, except in the possession of wings, and the metamorphosis is slight. Lepidoptera in the larval form possess a head, legs, and prolegs, and are popularly known as caterpillars; the larve of Coleoptera, which have heads and may or may not have legs, are called grubs; and those of Diptera, which are leg-less and frequently without a head, are called maggots.

Larvik (Norway), see Lauvik. Laryngismus stridulus, a spasmodic and again at the fight at the Port affection of the larynx that occurs in

young children. It may attack rickety projecting pieces at its upper and or nervous children, but is especially associated with adenoids. It is characterised by a sudden arrest of respiration, the child becomes blue in the face owing to imminent asphyxiation, and breathing is resumed by long crowing inspirations. The cause of these attacks is somewhat obscure: it consists of a reflex spasm of the glottis. and may or may not be accompanied by a preliminary catarrh. The attacks are likely to be recurrent, or may cease without any obvious reason. usually

ination. is very patient

should be examined for adenoids, and these should be removed if present.

Laryngoscope, an instrument by which the condition of the larynx may be observed. It consists of a small mirror attached to a long handle at an angle of about 120°. The instrument is first warmed to prevent obscuration by the condensation of mois-ture, and then introduced into the throat with its back against the soft palate and uvula. At the same time a strong light is directed against the mirror from a lamp placed on the shoulder or forehead of the observer, so that the light is reflected towards the larynx and back again to the mirror. By this means the extent of lawrageal inflammation, or the present laryngeal inflammation or the presence of foreign bodies can be determined and suitable treatment decided upon. The instrument was first used by Manuel Gardia to examine the state of the larynx in singing, and was adapted to medical purposes by Dr. Czermak of Pesth.

Larynx, the organ of voice, situated in the upper and front part of the neck. It consists of a framework or box of cartilages, with their ligaments and muscles, and is in the direct course of the current of air from lungs to mouth and vice versa. opens above into the cavity of the pharynx at the base of the tongue and connects that cavity with the trachea or windpipe. The cartilages are movable with regard to each other, and this motion, together with differences in the tension of the clastic ligaments causes these median elastic ligaments, causes those modifleations in the resistance to the air current which give rise to the phenomena of voice. The cartilages composing the framework of the L. are tensity is determined by the amplitude of those vibrations. Inflammathe two arytenoids, the two corniculation of the L. is known as laryngitis. Inflammathe two arytenoids and the two cuneiform carticular in the two consists of two lateral pieces chill, or by microbic infection. The protection of the corn printed in front to form printed in the control of the corn printed in front to form printed in the corn
lower corners. The cricoid is a ring situated below the thyroid to which it is connected in front by thick fibrous tissue, while it is joined to the trachea below by fibrous membrane. The arytenoids are two smaller cartilages of great mobility resting upon articular surfaces in the posterior part of the cricoid, and bound to it by fine elastic ligaments. The epiglottis is a thin cartilage with many perforations, which serves as a valve or covering for the laryngeal cavity: during respiration it is raised so as to admit of the passage of air, but the action of swallowing brings it down so as to enable the food to pass through the gullet behind. The most important ligaments are those known as the vocal cords. The true vocal cords, or inferior thyro-arytenoid ligaments. consist of fine elastic fibres joined behind to the base of the arytenoid cartilages and in front to the middle of the angle between the wings of the thyroid cartilage. They divide the cavity of the L. into an upper and lower part which communicate with each other by the glottis, a chink or aperture between the vocal cords. The size of the glottis is an important factor in voice-production. adult male it measures about 23 mm. from front to back, and from 6 to 12 mm. transversely. In females In females and males before puberty the length of the aperture is about 17 mm., and its width about 4 mm. The muscles of the L. may be divided into two groups, the extrinsic muscles. which move the L. as a whole, and

mechanism therefore consists of the medifying processes in the course of the blast of air from the lungs. The pressure of the air passing upwards through the trachea distends the margins of the elastic membranes constituting the vocal cords, the aperture is therefore opened mo-mentarily while the air passes through, and thus a series of vibrations is produced. The pitch of the sound is determined by the number of vibrations in a second, while the in-tensity is determined by the ampli-tude of those vibrations. Inflaminaunited in front to form a ridge causing symptoms are pain and difficulty in the projection known as 'Adam's phonation, and swelling of parts of apple.' Each of the lateral plates has the L. The treatment includes rest for the voice and antiseptic throat! washes. Laryngitis is always worthy of attention, as excessive inflammation causes great difficulty in respira-tion not unaccompanied by danger, while a succession of attacks is apt to lead to a chronic form in which the voice is injuriously affected more or less permanently. See Croup, HOARSENESS, LARYNGISMUS STRIDU-LUS, LARYNGOSCOPE.

La Salette, see SALETTE, LA. Lasalle, a city of Illinois, U.S.A. 84 m. W.S.W. of Chicago, and the terminus of the Illinois and Michigan Canal. Has extensive manufactories of clocks, Portland cement, and zinc, and the surrounding country abounds

in coal. Pop. (1910) 11,537.

La Salle, Robert Cavelier, Sieur de (1643-87), a French explorer, born at Rouen, remembered for his exploration of the valley of the Mississippi and discovery of the Ohio. Emigrated to Canada in 1667, where he made long excursions among the native tribes and traded in fur. Colbert appointed him governor of Fort Frontenac in 1675, and gave him a patent empowering him to pursue his discoveries. In 1679 he explored the great lakes, the Ohio, and the Mississippi. In 1684 he left France on further travels, but encountered great difficulties, and was murdered

by his mutinous crew. See Parkman's La Salle and the Great West, 1869.
Lascar, a name adopted in England into the Merchant Shipping Acts, signifying a soldier or camp-follower. Originally used by the Portuguese for an inferior class of men in military service, it is now generally applied to East Indian sailors serving

on British ships.

Lascaris, Andreas Johannes (c. 1445c. 1535), surnamed 'Rhyndacenus,' a c. 1950), surnamed 'Knyndacenus,' a Greek scholar of noble birth. He was a fugitive to the court of Italy in 1454, and was patronised by Lorenzo de' Medici. Later he went to Paris where he taught Greek, and in 1508, Leo X. placed him at the head of a Greek college in Rome. Remembered as editor of The Greek Anthology. as editor of The Greek Anthology, commentaries on Sophocles, etc. See

Villemain's Lascaris, 1825. Lascaris, Constantin (c. 1434-1501), a famous Greek grammarian, and a pioneer of Greek studies in the West. Fled to Italy in 1453, after the capture of Constantinople by the Turks, and taught at Milan, Rome, Naples and Messena. Best known by his celebrated Greek grammar (1476), the first work printed in Greek characters. See Villemain, Lascaris ou les Greegs au XVe siècle, 1825; and Symonds, Renaissance, 1877.

Las Casas, Bartolomé de (1474-1566), a Spanish missionary, noted ancients as a drug,

for his zeal on behalf of the oppressed Indians, born at Seville. Studied at the University of Salamanca, and in 1502 went to Hispaniola, where he became a planter and preached the Gospel to the natives. In 1516 he re-turned to Spain to lay before the king the cause of enslaved Indian, but his zeal ar up powerful

were unavail he repeatedl; he repeated! plead their cause, and addressed several letters and treatises on the subject to Charles V. In 1544 he accepted the bishopric of Chiapa, Mexico. Three years later he returned to Spain and passed the remainder of his life in the Dominician College at Valladolid. His works include an unfinished History of the Indies, an important source of information on Spanish discoveries and conquests. See A. Helps, Life of Las Casas, and Sabin, Works of Las Casas,

Casas. Las Cases, Emmanuel Augustine Dieudonné Marin Joseph (1766-1842), a French officer and historian, the companion of Napoleon at St. Helena, born near Revel, Languedoc. Served in Condé's army in 1792, and then spent some time in England, and fought for the royal cause at Quiberon (1795). He returned to France at Napoleon's accession, and worked at his famous Atlas historique, published under the name of Lesage. Waterloo he shared Napoleon's exile, and published the ex-emperor's memoirs, under the title of Memorial of St. Helena.

Lascelles, Sir Frank Cavendish

Lascelles, Sir Frank Cavendish (b. 1841), a British diplomatist, son of the Rt. Hon. W. S. S. Lascelles; entered the diplomatic service in 1861, and was appointed general of Bulgaria (1879). He was created minister of Roumania in

created minister of Roumania in 1886, and minister of Persia some years later. He has held since then the posts of ambassador to Russia and Germany.

Lasco (or Laski), Johannes (1499-1560), a Polish reformer, nephew of the celebrated Archbishop Laski. Studying abroad he became imbued with the Zwingli and Erasmus doctrines. Nevertheless he was made Bishop of Vesprem, but soon fell into disfavour with the archbishop upon discovery of his secret marriage. Letried hard to win Poland over to the Protestant faith. He wrote History Protestant faith. He wrote History of the Cruel Persecution of the Church of God.

Laser, or Asadulcis, a gum-resin obtained from the umbelliferous plant Thrapsia garganica, common to N. Africa, and was esteemed by the La Serena, or Coquimbo, the cap. philosophical work on Heraclitus the of the prov. of Coquimbo in Chile, Obscure, published in 1858. The same and has a port 7 m. away. Has smelt-year appeared his remarkable pam-

ing works. Pop. 16,500.

Laserpitium, a genus of umbelliferous plants, found in Europe, Asia, and N. Africa. It consists of about twenty species: L. glabrum, the glabrou acrid substan be a ative violent. of the S. Europe. and

Lasiopetalum, a genus of Stercu-liacem, is found only in Australia. It consists of twenty-five overgreen

shrubs.

Lasker, Eduard (1829-84) a Prussian Liberal politician, born at Posen of Jewish descent; educated at the universities of Breslau and Berlin. He lived for three years in England, and in 1865 entered the government service, and was elected to the Lower service, and was elected to the Lower House. Two years later he entered the German Reichstag and headed the secessionists from the national Liberal party in 1880. Lasker took an active part in the civil consolidation of the German empire. He published, among other works, Zur Verfassungsgeschichte Preussens.

Lasker, Emanuel (b. 1868), a German chess champion, born at Berlinchen. At first interested in mathematics he turned his attention to chess, and from 1889-97 had a career

and he

first and in the following year at the intermediational tournament, New York, he labours being published in an Essay beat Steinitz, the champion of the on the Pali or Sacred Language from world. Again, in 1897, he won first prize from Steinitz at Mosco L. has triumped over all competit

both in tournaments and dual matches. In 1904 he started Lasker's Chess Magazine.

cap. of Gran Las Palmas, the the N.E for its

sesses a theatre, cathedral, and various hos-pitals and educational institutions. It owns a large shipbuilding trade, and there are many steamboat excur-The climate is delightful. Exports fruit and vegetables. Pop. 45.000.

studied at the universities of and Berlin, chiefly confining

to philology and philosophy,

extraordinary brilliancy won him Lasso, a plaited rope of tan hide many admirers. Here he began his used by the Spanish Americans for

phiet on the Italian War and the Mission of Prussia, in which he showed himself an ardent patriot and fanatical advocate of German unity. In 1861 he published Das System der erworbenen Rechte, an able legal work. L. was an ardent disciple of Marx. though there is a vast difference in their methods and ideas. As a politimovement, modern Socialism owes much to him. He met his death in a duel, when only thirty-nine years of age. His unhappy love-story with Helene von Doönniges is the theme of Meredith's Tragic Comedians, where L. figures as Dr. Alvan. Lassell, William (1799-1880), a

Lassell, William (1799-1880 celebrated English astronomer, at Bolton in Lancashire. In 1820 he erected for himself an observatory at Starfield, where he worked for a period of over forty years. He was able to make several important discoveries by means of a new polishing machine which he had invented. To his exertions we owe the discovery of the satellite of Neptune (1847), two new (1848).

0-76), a Nor-n at Bergen. Heidelberg.

Bonn. and was professor of and ancient Indian languages at the last-named university from 1830 till 1864, when he lost his sight. With Eugene Burnouf, he deciphered many Pali MSS., the result of their combined

L.'s numerous and valuable works relate to a variety of Oriental lan-guages and ancient history, the most important being: Persian Cuneiforms; Prakrit; Indian Civilisation, etc.

Lassen, Eduard (1830-1904),Danish musical composer, born at Copenhagen. Began his musical Copenhagen. education at Brussels at a very early age, and in 1851 won the Prix de Rome. Through the good services of Liszt, his opera Le Roi Edgard was biszt, his often with the first was produced at Weimar in 1857, and in 1878, on the retirement of Liszt, L. was made capellmeister to the Lassa, see Lhassa.

Lassalle, Ferdinand (1825-64), a court, retiring in his turn in 1895. brilliant German Socialist, born at Among his chief works are: Landgruf Breslau, of Jewish extraction, and Ludwigs Brantfahrt; Frauenlob; Le one of the founders of the Social Capti (all operas), and he also wrote Democratic party in German. a bn.

catching wild cattle. It measures 60; to 100 ft. long, and a noose 8 ft. wide, is made at one end to entrap the horns of the animal.

Lastra, a com., Italy, 3 m. W. of Florence. It is the centre of a large

straw hat industry. Pop. 12,000.

Las Vegas, a tn. of New Mexico.
U.S.A., in the co. of San Miguel, 44 m.
E. by S. of Santa Fé. There is a large metal industry, and the town is noted for its hot springs. Pop. 3600.

mud eruptions from the volcano hard masses occasionally occur.

Pop. 15,000. Cotopaxi.

Latakiah (Turkish Ladikiyeh), a seaport tn. of Syria, and 75 m. distant from Tripoli. The finest tobacco, sponges, and cotton form the exports. Pop. 22,000.

Lateen-sail (Fr. voile latine, Latin sail, so called as the chief form of rig in the Mediterranean), a triangular sail suspended to the mast by a long yard, and rigged so that the upper end is raised in the air and the lower brought down to form the tack. vessel rigged with a L. and yard is known as a 'lateener.' It is still the typical sail of the felucca of the Mediterranean and dhow of the Arabian Sea.

Latent Heat, the heat that enters a substance during the process of lique-faction, or of vaporisation. The appli-cation of heat ordinarily raises the temperature of a body, but when a change of state is imminent, it is found that heat is applied without any corresponding change in the thermometric reading until the change is complete. On the old assumption that heat was an imponderable substance introduced into the body heated, such heat was called 'latent'; that is, it concealed itself from the thermometer. The principle has important applications. For instance, water on evaporating abstracts heat from surrounding bodies; hence the danger of chill when moisture is allowed to dry from one's clothing. Conversely, heat is given out when a vapour condenses, or when a liquid solidifies. The L. H. of fusion of ice is about 80; that is, it takes 80 times the amount of heat required to raise the temperature of ice or water 1° C. to melt the same weight of ice at 0° C. The L. H. vaporisation of water is about 536.

Lateran Church of St. John, the moi important of the Roman churche St. Peter's excepted. This church Important of the Roman churche
St. Peter's excepted. This church 'bow and cord and 'pole' Ls. are was originally dedicated to the vastly different from the present-day Saviour under the title of Salvator, examples of engineering skill, but are

wards rebuilt in the middle of the 12th century by Lucius II., and was dedicated to St. John the Baptist It was completely destroyed by Pope Sixtus VI. in 1586 and reconstructed. Five œcumenical councils were held

Laterite (Lat. later, a brick), a superficial deposit of red or brown clay, produced on the surface of rocks by their decomposition-common in for its hot springs. Pop. 3600.

Latacunga, the cap. of Leon prov. in Ecuador. This town, mostly constructed of dark-coloured pumices structed of dark-coloured pumices stone, has been the scene of many and friable, and rich in iron, though general, L. is perforated by tubules. The depth of the beds varies up to 30 or 40 ft., the surface often being hard or 40 ft., the surface often being had and stony, and the deeper layers soft. Low-level L. is the surface rock of the extensive lowlands, and is formed from the débris of volcanic rocks. Latham, Robert Gordon (1812-88), a brilliant English philologist and ethnologist, born in Lincolnshire. He become a fellow of King's Collece

became a fellow of King's College, Cambridge, and took his M.D. degree. but he was more interested in philology, and among his best known contributions to literature are his English Language; Ethnology of the British Colonies; The Ethnology of Europe. He advocated the new theory that the Aryan race originated in Europe

and not in Asia.

Lathbury, Daniel Connor, (?) an English journalist and churchman; educated at King's College, London, and at Brasenose College, Oxford, where he graduated. On leaving Oxford he read for the bar, and was admitted a barrister at Lincoln's Inn, but never practised his profession, devoting his time to journalism. From 1878-81 he was joint-editor of The Economist, and from 1883-99 underteely the cole additionable of The took the sole editorship of The Guardian. In 1900, on the founda-tion of The Pilot, L. became its editor and continued to hold this position till 1904, when it ceased to exist. L. has also edited Correspondence on Church and Religion of W. E. Gladstone, 1910.

Lathe (etymology uncertain,

Lathe (etymology uncertain, possibly a modified form of lath, or may be derived from Danish lad, a framework, as in savelad, a saw loom, bench; vævalad, etc.),

holding and) be worked purpose of

and occupied the site of what was still used in some parts of the world once a magnificent palace belonging In each of these types the movement to Plautius Laterinus. It was after- was alternately forward and back-

ward; the wheel-driven L. was not seed until the 14th century. Another peculiarity of the old types was that they were all dead centre, whilst unknown in Lincoln. In 1529 he in metal was not extensively used in the montant was not extensively use the manufacture of Ls. until the 19th century. There are now over fifty different types of L., the bit of centres ranging from 3 in. to 9 or 10 ft., and their weight from 50 lbs. to 200 tons. The essential principle of all modern Ls. is that of two point centres in which the work rotates, and a rest to support the tool operating on its surface. If the work revolves between fixed centres the L. is termed a 'dead-centre' one, but very few are of this class. The majority have a running mandril by which the piece is driven, thus introducing a 'live' centre. The loose headstock is called the 'poppet,' the other one being called the 'fast 'or 'fixed' head. Both heads stand on a bed, and the loose head is adjusted at a varying distance from the fast head according to the work. The other element in a L. is the rest, which is either of the hand form or a slide rest. In the former case it consists of a bar upon which the turner rests the tool and manipulates it by hand, whilst in the latter case the rest grips the tool and moves it in unvarying planes by means of slides operated by screws. In the more complex Ls. duplicating rests or turret rests are used; the former bring several tools to bear simultaneously upon different parts of the work, whilst the latter bring a succession of tools to bear without any change of rest. Ls. may be driven by a treadle, by belting from a countershaft, or by an electric The motion is transmitted

N.N.E. of Liverpool. The seat of the sophy from the classic authors. L. is Earl of Lathon is a mansion built in also the author of a treatise on rhethe Greek style and dates back to toric and a poem entitled, Il Tesoritto. 1750. Another mansion occupied the See Negri, Isloria degli Scrittori same site as far back as 1644, when Fiorentini; and Tiraboschi, Storia the Countess of Derby held out della Letteratura Italiana. against Fairfax. Pop. (1911) 7235.

Laths (It. latta, Fr. latte), thin strips of wood employed in building, is a branch of the Indo-European or forming a foundation for plaster, or Aryan family of speech, and is more

Latimer, Hugh (c. 1485-1555), an English reformer, son of a yeoman, plain of Latium, S. of the born at Thurcaston, near Leicester, Various other languages we educated at Cambridge: elected a the same time used in Italy.

unknown in Lincoln. In 1529 he in-curred disfavour as being known to sanction Henry VIII.'s divorce. He was consecrated Bishop of Worcester in 1535 and preached powerful ser-mons, urging on the Reformation. He was impeached and sent to the Tower twice during Henry's reign, and on the accession of Edward VI. resigned his episcopal functions and devoted himself to preaching and works of benevolence. Under Mary in 1555 he was found quilty of horesy together and Cranmer, ake. See Tytler and Mary and Stow's Chronicle. ΓI . turs.

Latimer Clark's Cell, see CELL. Latin Empire, portion the Byzantine empire, captured by the crusaders in 1240, but overthrown by the Greeks in 1261. Constanti-

nople was its capital. See BYZANTINE

EMPIRE. Latini, the name of one of the oldest nations in Italy, viz., the inhabitants of Latium, a country of Italy near the Tiber,

of the Umbri of the countr

Laurentum was the capital, changed by Æneas to Lavinium, and by Ascanius to Alba. At the founding of Rome by Romulus, the L. soon rose

in importance.

Latini (or Latino), Brunetto (1230-94), a famous Italian poet, orator, and grammarian, born at Florence. Here he taught philosophy and grammar, or without the intervention of backgears, or by chains or toothed gear.

The work done by Ls. includes turning, boring, facing, drilling, screwing,
milling, and titled Le Trésor, written in French,
which contains extracts and translawhich contains extracts and translawhich contains extracts and philotime on rhetoric, history, and philocontains extracts. Dante figuring amongst his pupils. He was attached to the Guelph party Lathom, a tn. in Lancashire, 13 m. tions on rhetoric, history, and philo-N.N.E. of Liverpool. The seat of the sophy from the classic authors. L. is

forming a foundation for plaster, or Aryan family of speech, and is more tiles, slates, and similar covering for closely allied to the Celtic group roofs. Lattice-work or bars of than to any other. It was originally Venetian blinds and shutters are spoken by the inhabitants of the made from L. tribe called Latini, who dwelt on the plain of Latium, S. of the Tiber. Various other languages were at the same time used in Italy. The

Greece.

vernacular spoken in Etruria was from Latin, there sprang up the Tuscan, Iapygian was the language Romance languages of modern Eurof a race in S.E. Italy; Celtic tribes ope, which comprise Italian, Spanish, country, and each spoke in their own tongue. Gr quered th tribes, and the Latin

Europe. possess any early literature, but the fact that many of them have survived to the present day and that some have since acquired real literary importance shows how slowly Latin obtained its dominance over them.

In the pre-Literary period of Latin, that is, the period before 250 B.C., as far as it is possible to judge from the extant records and inscriptions, Latin was a heavy and unwieldy language, crude and undeveloped as any other patois of ancient Italy. During the pre-Classical period (250-85 B.C.) the literary language separated from the vulgar dialect. The Romans began to realise their special powers of conquest, of organisation, of administration, of jurisprudence, and of oratory, and as these powers developed, so Latin became more and more adapted to the needs of legal, historical, and rhetorical writing. Latin prose reached its full maturity in the reign of Augustus, when it attained perfect clarity while keeping its former solidity and dignity. Latin is not solidity and dignity. Latin is not naturally suited to the writing of poetry. The Romans themselves were not an imaginative race, and the long sonorous Latin words do not fall easily into lyric metres. In the hands of Virgil and Horace it received its finest form as a poetic in-During this period the sermo cotidianus, or spoken tongue, of Rome, became general throughout Italy, having already borrowed considerably from the dialects of the Sabines, Umbrians, Marsians, Sam-nites, and other tribes. After the After the death of Augustus, much of the literature was marked by an affectation of ornament and straining after rhetori-cal effect. The simplicity and purity of the language was gradually dis-With the increase of appearing. commerce and travel, the vocabulary became increased with borrowings After 180 A.D.

with the fall of

in Latin was kept up by Christian and by medieval scholars, who used an improvement an impoverished and disorganised

Like Greek, Latin is a highly in-ctional language. Nouns have flectional language. three genders, but only singular and plural numbers, the dual number which is present in Greek being only present in one or two Latin words, such as ambo, both. Latin has six cases—nominative, vocative, accusative, genitive, dative, and ablative, with traces of a locative (cf. domi, at home), while

Latin are, or than those of Greek. Besides lacking a dual number, Latin has no article, no aorist tense, and only traces of an optative mood and of a middle voice. In Greek, too, there are far greater facilities of making compound words

and expressing abstract terms. Latin has fuller passive inflections than Greek. Another point of difference is that Latin has five declensions of nouns, whereas Greek has only three. In verbal syntax Greek is much freer than Latin. Latin has not variety of particles and prepositional usage which make Greek a perfect instrument for expressing the subtlest philosophical thought. On the other hand, Latin has the greater conciseness and precision.

The alphabet of the Romans was derived from that of the Greeks, who had settled in colonies in Southern Italy. It originally consisted of twenty letters, A B C D E F H I K L M N O P Q R S T V X. The signs used by the Romans corresponded to those in use among the Chalcidian Western Greeks, and thus differed from those of the Ionian alphabet, C supplanted Greek γ (gamma), having originally the sound of g, for it was used as a capital letter to indicate the name Gaius, while Cn. stood for Cnæus. Later C came to represent the hard sound of K, which letter thus became superfluous and was only retained in a few words, such as Kalendæ. The new symbol G was introduced in 312 B.c. by Applus Claudius, and was placed between letters F and H. I had both the vocalic sound of i and the consonantal sound of j, and v likewise was employed to represent two sounds, the vowel sound of u and the consonantal sound of v. During the 1st century B.C. the Greek letters Y and Z form of the language, known as that Latin. With the conquests of the Latin. With the conquests of the Roman arms, Latin had spread into unsuccessful attempt to introduce countries far from Rome, and was almost universally adopted through sounds of ms (Greek v), w, and modified w. It is generally admitted

corresponded to the sounds of c and a in English cat and get respectively; I (j) and U (v) had semi-vocalic sounds, as English v and v. while L and R were trilled. S was voiceless. as in this. Q generally preceded a u and had the same sound as in English; T and D were sharp dentals, and the rest of the consonants were pronounced as in English.

Consult W. M. Lindsay, The Latin

Language, a Historical Account of its Sounds, Stems, and Flections, 1894; King and Cookson, Sounds and In-

2. Literature.—It is impossible to fix with any precision the beginning of Latin literature in Rome and the neighbouring Latin communities. that is to say, the date when the art of writing was employed consciously in literary form. Of Latin inscriptions the earliest known to us are the 'Forum Inscription,' engraved on a brooch found in a Preneste tomb of the 7th century B.c., and the Duenos Inscription on a clay vessel dating back to the 4th century B.C. Many inscriptions of tury B.C. Many inscriptions of various kinds, belonging to a period prior to the 3rd century B.C., have been preserved. Some on tablets commemorate victories; others on coffin lids or on busts take the form of epitaphs and culogies. The text of the famous Twelve Tables (451-450 B.C.) has unfortunately come down to us only in the form of quotations (cd. R. Schoell, 1866). A great advance in the art of writing may be seen in the Annales, which are private records of family history, of brave deeds, of funeral orations, of brave deeds, of funeral orations, and the like. There is no doubt that a primitive kind of poetry also existed in very early times. Rude

by scholars that the vowels in classi-dramatic form, and were contests of cal times were pronounced as in wit and invective, interspersed with modern Italian. Latin C and G songs and dances. But these early writings were only the crude efforts of a young race; the literature of the Roman people did not, speaking, begin till the middle of the 3rd century B.C. The first period of Latin literature, commonly called the pre-classical period, extends from about 250 s.c. to about 85 s.c. During this time the Romans made experiments with various literary forms, with tragedy, comedy, satire, and epic and didactic verse. At the close of the Punic War in 241 s.c., Latin, 1888; Mome having secured her position as mistress of the Mediterranean, her more wealthy citizens turned to the leisurely pursuit of learning. The nonly literature that was available to the Market of Greek, and Greek culture continued to hold sway over Roman thought to the end. It is a way and the history of Card ed.), 1888; Conway Dialects, 1897; Mommser teritalische Dialekte, 1850. Lexicography: Lewis and Short (1879), Smith (1890), and Du Cange (Middle and Low Latin, 1678).

2. Literature.—It is impossible for the Mediterranean, her more wealthy citizens turned to the leisurely pursuit of learning. The only literature that was available to culture continued to hold sway over Roman thought to the end. It is a begins with the Dialekte, 1850. Lexicography: Lewis and Short (1879), Smith (1890), and Du Cange (Middle and Low Latin, 1678).

2. Literature.—It is impossible for the Mediterranean, her more wealthy citizens turned to the leisurely pursuit of learning. The only literature that was available to culture continued to hold sway over Roman thought to the end. It is a begins with the Dialekte, 1850. Lexicography: Lewis and Short (1879), Smith (1890), and Du Cange (Middle and Low Latin, 1678).

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a Greek captive of Tarentum, is con-brated for having produced, in 240 B.C., the first drama on the Roman stage. His plays were adaptations from the Greek, and achieved such success that theatrical performances became a permanent institution in Rome. Androi also translated the Odysscy Ándronicus Saturnian verse, and is said to have addressed a lyric poem to Juno Reginina. Considerable progress in the development of the drama and the epic was made by his two younger contemporaries, Gneus Navius contemporaries, Gnæus Nævius (c. 270-200 B.c.) and Quintus Ennius (239-170 B.C.). Nævius wrote great number of comedies and some tragedies, the majority of which were based on Greek originals. But in two cases, at least, he handled materials provided by the history of his own country, and may, therefore, be said to have founded the national drama. His Alimonium Romuli et treats of the legendary founding of Rome, and the Clastidium deals with a contemporary historical event, namely, the victory of M. Marcellus over the Gallic tribes in 222 B.C. Nevius also laid the foundation of and the like. There is no doubt that the Roman national epic. His a primitive kind of poetry also existed in very early times. Rude songs, often composed extempore Punic War, in which he himself had and sung or recited antiphonally, taken part, was an acknowledged formed an important feature of weddings and of other festive ceremonies; dirges were sung over the dead, and hymns and chants formed part of the ritual of the ancient religion. Latin comedy may be traced back to the saiura, which took the the Roman national epic.

in the neighbourhood. Consequently, examples of the fabula palliala, a in early life he was as familiar with the Greek as with his native tongue, so called from pallium, a Greek and when he came to write his mantle, because it was derived from Annales, an epic of Roman history Greek sources. Plantus modelled his in eighteen books, he chose the style on the New Attic Comedy of the New Att Greek hexameter in preference to the native Saturnian metre. Only a few hundred lines remain of this poem, but they are sufficient to vindicate the praise which was lavished upon it by subsequent Roman writers. Ennius showed considerable power, too, as a writer of tragedies. These were modelled chiefly on the dramas of Euripides, but were infused with the true Roman spirit. A more important branch of his work must be mentioned. His saturæ differed from the musical 'medleys' which have already been noted in connection with the early beginnings of Latin literature. They were really collections of miscellaneous poems, on fabular, philosophic, didactic, and various other subjects. A few of these, written probably through the influence of Aristophanes and Cratinus, dealt with contemporary events in a satirical tone, and hence prepared the way for the 'satire' prepared the way for the satire' proper, a purely native product of ancient Italy. The satire, as he used it, was later developed by Gaius Lucilius (c. 180-103 B.C.) who, employing the dactyllic hexameter, brought all spheres of political, social, and literary life within his range of discussion, and lashed pitilessly at the vices and absurdities of his time. discussion, and insuced producesty act the vices and absurdities of his time. Nævius and Ennius were succeeded by Marcus Pacuvius (c. 220-130 B.C.), and Lucius Accius (170-c. 105 B.C.), who were regarded as the most important tragedians of Rome, but whose weeks have unfortunately been whose works have unfortunately been lost. Pacuvius, who was a nephew of Ennius, wrote imitations of Greek plays, as well as a prætezta (i.e. a play whose plot is derived purely from Roman history, and in which the hero wears the toga prætexta, the official robe of a Roman magistrate). Accius was, apparently, a far more prolific writer. He wrote Brutus and Decius, examples of the pratexta, tragedies, of which the titles and fragments of nearly fifty remain, and poems on miscellaneous subjects, such as grammar, poetry, acting, metres, antiquities, etc., which have been lost.

Latin

The chief exponent of Roman comedy was Titus Maccius Plautus comedy was Titus macuus random (c. 254-184 B.C.). Of his plays twenty are extant, which are all included in the list of genuine plays made out by Varro. The best of these are the

Rudens, and are

Menander, Philemon, and other Athenian poets. Though in form and matter Plautus followed Greek matter Platitus followed Greek models, he nationalised his plays by introducing incidents, situations, and customs peculiar to the life of Rome. customs peculiar to the life of Rome. His work is not infrequently slipshod, but he had a masterly command over language and an inexhaustible fund of lively, though often coarse, wit. Plautus's influence on modern comedy is inestimable. To the dramatists of the Renaissance, Plautus was with Aristophanes the model for comedy. His influence is model for comedy. His influence is manifest in the work of Shakespeare and Molière, as well as in the Restoraand Monters, as well as in the Restora-tion Comedy of Manners. Plautus's immediate successor in Rome was Statius Cæcilius (d. 166 B.C.), an In-subrian Gaul, who had been brought captive to the city about 194 B.C. He is to us, however, hardly more than is to us, however, hardly more than a name. The titles of some forty of his plays have survived, and he appears to have been held in high esteem. A more cultured, but less virile, writer was Publius Terentius Afer (c. 185-159 B.C.), who, according to tradition, produced his first comedy, Andria, under the patronage of Cecilius. Terence was a Cartherinian prisoner of war and rethaginian prisoner of war, and re-ceived his emancipation and education from the senator Terentius Lucanus. His literary gifts admitted him when a youth into the most aristocratic circles of Rome, and he hecame an intimate friend of men like Gaius Lælius and the younger Scipio Africanus. Besides the comedy already mentioned, he wrote: Hecyra, Heautontimorumenos, Eunuchus, Phormio, and Adelphi, all of which are extant. Terence adhered more closely than Plautus to the Greek originals, retaining also the Greek brighas, feathing and the Greek background to his scenes. His plays are chiefly distinguished by their elegance and artistic finish; he lacked the vigorous originality of Menander, and the fresh wit of Plantus After the death of Terence, a new kind of comedy sprung up, known as fabula logata, the form of known as fabula togata, the form of which was still Greek, but the life and characters Italian. Examples of it remain only in fragments, and it is improbable that it ever had any literary value. The earliest representative of this latter form of Latin comedy was Titinius, who flourished about 150 B.C. His most important successors were Quinctire. successors were Quinctius Atta (d. 77 B.c.) and his contemporary,

comedy virtually ceased with the death of Terence. The Roman populace preferred for holiday entertainment the more sensational per-formances of mimi, jugglers, and gladiators, and literary enterprise was therefore obliged to seek out

. fresh channels of expression. Latin prose, not unnaturally, was late growth. From the very of late grown. From the very earliest times prose was used in the necessary business of city life. As has been noted, the earliest inscriptions, epitaphs, laws, and records were written in prose, but the development of prose style, the re-cognition of prose as a literary medium of expression, took place late in the history of Latin literature. A prose style was gradually formed by the practice of public speaking, oratory being an art in which Romans excelled. It is noteworthy, then, that the first written prose of any real literary importance is the speech of Appius Claudius opposing the pro-posals of Pyrrhus for peace. This was read by Cicero, but has unfortunately been lost. Marcus Porcius Cato (234-149 B.C.), commonly known as 'Cato the Censor, was regarded as the founder of Latin prose literature. About 150 of his speeches were extant in Cicero's time, but have not come down to us. Cato's contemporary orators included C. Lælius and the younger Scipio, who were succeeded by Marcus Lepidus Porcina (fl. 137 B.c.), the famous Gracchi (Tiberius, 163-133 B.c., and Gaius, 154-121 B.c.). The oratory of the next generation, and in particular of Marcus Antonius and Licinius Crassus, attained a higher level of literary perfection, until we reach the unrivalled speeches of Cicero. Meanwhile, scientific treatises were written on the rules of rhetoric, only one of which is extant, namely the Rhetorica ad Hercanium, formerly ascribed to Cicero, but probably the work of one Quintus Cornificius. The early annalists, who include Fabius Pictor, the historian of the second Punic War, and Cincius Alimentus, who was taken prisoner by Hannibal and narrated his personal experiences, wrote in Greek probably because Latin was not sufficiently developed to meet the requirements of prose composition. Cato the Censor was the first to write a history of Rome in Latin prose. His Origines, in seven books, brought the history of the city down to his own time and comprised the results of his subject, moreover, which had not wide study and personal experience. hitherto been treated in the Latin The only work of Cato's which has tongue. Catullus and Lucretius died

Lucius Afranius, who was praised by Survived is a treatise on agriculture, Cicero and retained some of his De Re Rustica, to which Virgil propopularity as late as Nero's time. bably had resource in writing his However, the development of Latin Georgies. But Cato's influence pre-De Re Rustica, to which Virgil pro-bably had resource in writing his Georgies. But Cato's influence pre-vailed chiefly as an historian, and his successors, Cassius Hemina, Cal-purnius Piso Frugi, Celius Antipater, and others, borrowed freely from the An advance is seen in the Origines. work of Claudius Quadrigarius (fl. 90 B.C.), who showed judgment in his choice of material by rejecting all legendary and doubtful records. Sulla, the dictator, who lived about the same time, wrote a memoir of his own life and times, entitled Rerum Suarum Commentarii. Sempronius Asellio (fl. 100 B.C.) in his Rcrum Gestarum Libri was not content with giving facts in chronological sequence, but attempted to explain the cause and effect of events. Other annalists of this period are Valerias Antias, Licinius Macer (d. 66 B.C.), Cælius Antipater, and Cornelius Sisenna (d. 67 B.C.), whose works are lost but

for a few fragments. During the 1st century B.c. a new impulse was given to the writing of poetry, which for a time had made little or no advance, by renewed study of Greek and Alexandrian poetry. There existed in Rome at this time a friendly group of poets united by their common enthusiasm for Greek culture. It included Valerius Catullus (87-54 B.C.) who adapted to his own purpose and obtained complete mastery over various forms of Greek instery over various forms of Greek iyric metres. He wrote passionate love songs to one Lesbia; an epithalamium to Peleus and Thetis, and another in honour of Manlius and Vinla; a paraphrase of Callimachus? Coma Berenices, and the Attis in galliambic metre, which is as remarkable and town devent in carried forms in various forms. able as a tour de force in metrical form as for its dramatic force and vividness of conception. Other members of this group were Gaius, Helvius, Cinna, and Licinius Macer Calvus, whose work has not come down to us. different from any of these, both as a poet and as a man, was Lucretius Carus (98-55 B.C.), author of one of the greatest philosophical poems in any language. His De Natura Rerum expounds the physical structure of the universe according to the teaching of Epicurus. Lucretius died before the poem was completed, and it is probably, in con-sequence, very unequal in quality. Lucretius regarded the graces of poetry as subordinate to the truths of his philosophy, so that it is remarkable with what genius he gives poetic form to an unpoetic subject, and a

within a year of each other, both and declamatory. His style is lucid; forerunners of the great poetic outburst which glorified the age of of the writer it is used with con-

Augustus.

During the 1st century B.C. at the close of the Republican period, Latin prose reached its zenith. Marcus Terentius Varro (116-27 B.C.) was a most prolific and versatile writer. He

Lingua Latina), m Rusticarum (Antiquilates

and philosophy (Libri Logistorici). He also published an encyclopædia of the arts (Disciplinarum Libri), and portraits of famous Greeks and Romans (Imagines). As a poet and a satirist, Varro showed considerable a satirist, Varro showed considerable ability. His Saturæ Menippeæ, moral essays written partly in prose and partly in verse, are in imitation of the cynic Menippus of Gadara, and are important as marking the develop-ment of the Latin 'satire.' The treatise on agriculture is the only one of Varro's works which has been preserved in its entirety. Marcus Tullius Cicero (106-43 B.c.) made an indelible impression on the literature as on the history of Rome. His literary work may be classified under three head-ings, his speeches, philosophical works, and letters. Oratory had already attained a high perfection in Rome, and at the time of Cicero's entrance into public life Quintus Hortensius Hortalus (114-50 B.C.) had no rival in the Forum. Hortensius indulged in the florid mannerisms of Attic rhetoric, and his fame was soon eclipsed by the young orator who aimed at polished and correct composition. Of Cicero's speeches fiftyseven are extant, the most famous being the Verrine and Philippic orations, the four speeches delivered against Catiline, Pro Murena, Pro Lege Manilia, Pro Archia, Pro Sestio, Pro Plancio, and In Pisonem. Of his philosophical treatises, the chief are: De Oratore, De Republica, De Legibus, De Natura Deorum, and De Officiis. Cicero's letters, Epistola ad Familiares, edited by his scoretary Tiro, are, of course, unequal in style and very different from his speeches; but they are of inestimable importance to the student for the vivid picture they give of contemporary Roman life among the upper classes. As letters, they stand the supreme test, and have long been regarded as the model of epistolary style. They reveal the man himself, in his strength and in his weakness. Cicero's great achievement was the creation of a prose style which was adapted to all the needs of life. He was sensitive to the ungue, and harmony of Latin prose, and He was sensitive to the dignity avoided all that was merely florid

reflecting every passing emotion of the writer it is used with con-summate ease to convey wit, humour, tenderness, pathos, anger, mence, invective at his will. vehe-Thus Cicero made Latin the written vehicle of the civilised world for centuries to come. Julius Cæsar (c. 102-44 B.C.), a colossal figure in the history of Rome, is second to Cicero as a writer of Latin prose. Cæsar wrote personal memoirs of his campaigns in Gaul, Commentarii de Bello Gallico. in a clear and simple style, admirably suited to the subject. His Commentaria de Bello Civili (49-48 B.C.) have also survived, but his other works, which include De Analogia and Anticatones. have not come down to us. As a historian Cæsar is incomparably superior to any of his predecessors, but like them his main object was to narrate the chief events in due order. Gaius Sallustus Crispus (86-34 B.C.), was the first Roman to realise that it is the function of the historian to interpret the actions of men. Modelling his work on that of Thucydides, Sallust attempted to give it an artistic unity. Unfortunately he affected an archaic style in imitation of the elder Cato, and introduced tedious platitudes into the mouths of his chief actors. He not infrequently sacrificed ac-curacy for the sake of producing an Catilina, Bellum Jupurthinum, and Historia. The last-named comprised five books, but only fragments of it have survived. Of the other prose writers who flourished towards the close of the Republican period, brief notice may be given to Cornelius Nepos (c. 99-24 B.C.), the author of an extensive hierarchical world world. an extensive biographical work entitled De Viris Illustribus; and Aulus Hirtius (d. 43 B.C.), who added an eighth book to Cæsar's Commentarii de Bello Gallico, and probably wrote the Bellum Alexandrinum.

The Augustan period may be said, roughly speaking, to have begun with the victory of Augustus at Actium in 31 B.C. His death in 14 A.D., marked its close. This period was distinuished by a remarkable output of verse, only to be compared in its fertility with that of the 'spacious days of Queen Elizabeth.' Publius Vergilius Maro (70-19 B.C.), in his in the compared in the fertility with the compared in the fertility with the compared in the fertility with that of the 'spacious days of Queen Elizabeth.' Publius Vergilius Maro (70-19 B.C.), in his in the compared in the

ind honour, poet of his lication, a

number of bucolic poems, called the *Ecloques*, which were written in imitation of the idyls of Theocritus, established his fame. He won a patron in Mucenas, to whom he addressed his *Georgics*. The *Enetâ* was written in

imitation of the Odyssey and Iliad, and was intended to arouse patriotism by a glorification of the origin of the Roman people in the founding of their city by Romulus, the descendant of Æneas, and by a comparison between the Trojan hero and the Emperor Augustus. It was unfinished at the death of Virgil, and was published at the express command of Augustus under the editorship of Varius Rufus and Plotius Tucca. The Æneid has stood the test of time, and is now ranked with the great epics of the world, with the Odyssey and the Iliad, with Dante's Divine Comedy, and with Milton's Regardies Locit

and with Milton's Paradise Lost. Quintus Horatius Flaccus (65 B.C.-8 A.D.) was, like Virgil, a man of humble origin who, through his literary ability, was admitted to the inner any ability, was attributed to the finite circle of the highest society in Rome. About 35 B.C. Horace published his first book of satires, dedicated to Miccenas, who in return made him the gift of a small Sabine estate, henceforth his favourite abode. They were written in hexameters, and owed their form to the satires of Lucilius. Horace himself called them Sermones or conversations. Between 30 and 29 B.c. his second book of Satires and his Epodes were completed, while the Odes (Carmina) were published in 23 and 13 B.C., and the Epistles (Epistulæ) in 20 and 15 B.C. As a metrist Horace was unrivalled. His verses are lively and graceful, and so finely polished that they give the effect of spontancity and ease, but the wings of his Pegasus are clipped so that he never soars to the loftiest heights of poetry. He has an extraordinary gift of words; his style is opigrammatic and terse, 'neat because homely.' His poems give us a very clear picture of contemporary life, and afford delightful reading for their revelations of his personality. Horace also published a work of literary criticism, the famous Epistula ad Pisones, better known as the Ars Poetica, which has exercised a powerful influence on subsequent literary criticism and creation, particularly in France and England. Its immediate aim was to Englatut. Its immediate and was to give guidance to young dramatists. Tragedy was again in vogue, and was being attempted by Asinius Pollio (76 B.C.-5 A.D.), Varius Rufus (74-14 B.C.), and Augustus himself. The 14 B.C.), and Augustus himself. younger generation of poets were, however, chiefly attracted by elegiac poetry, which had been cultivated in the Ionian cities and in Alexandria. The chief representatives of the The chief representatives of the Roman elegists are Tibullus, Propertius, and Ovid. Albius Tibullus (54-19 B.C.) sung poems to his mistress Delia, and lamented her faithlessness in Nemesis. His poems are marked

by their sincerity: the versification is polished, while the language is simple and homely. The poet, when not in mind of his love, sang the praises of country life. Sextus Propertius (49-15 B.c.) had not metrical skill, but possessed greater poetical genius. Propertius's chief theme was his mis-tress *Cynthia*. His style is often harsh and cumbrous, but he was stirred by a great, if sensuous, passion, and his poetry at its best is fresh and vigorous and rich in imagery. Publius Ovidius Naso (43 B.C.-18 A.D.), unlike the two fellow-poets of his youth, lived to a ripe old age. His early life was spent in Rome where his amatory poems—Amores addressed to Corinna the Heroides, a series of fictitious love letters, the Ars Amatoria, and Remedia Amoris-as well as the Metamorphoses, a collection of stories from Greek and Roman mythology, and the Fasti, a poetic exposition of the Roman calendar, were produced. In 9 A.D. he was suddenly benished from Rome for an unknown offence to Augustus, and spent the remainder of his life in exile at Tomi on the Black Sea. There, in his loneliness, he gave expression to his grief in the Tristia,

Epistulæ ex Ponto, and Ibis.

The prose of the Augustan period is represented to us by one great writer, Titus Livius (69 B.C.-19 A.D.), of Patuyium (modern Padua). He began his history of Rome, Ab Urbe Condita (from the foundation of the city), about 26 B.C., and did not publish the first twenty-one books until atter the death of Augustus (14 A.D.). The history was originally in 142 books (only books i.-ix., and xxi.-xlv. are extant) and extended from the arrival of Æneas down to the death of Drusus in 9 B.C. The faults of the work are obvious. Livy had no idea of historical research, and his chronology and description of places are often inaccurate. Moreover, he had little grasp of the Roman law and the Roman military system. But he is a consummate artist in the arrangement of his material, and in the dramatic presentation of his characters. Minor prose writers include Nitruvius Pollio, the author of De Archilectura; Anneus Sencea, father of the philosopher and author of Oratorum et Rhetorum Sententia Divisiones Colores; Pompeius Trogus, who wrote the first general history in Latin, Historiæ Philippicæ, of which only an epitome by Justin is extant; and Marcus Verrius Flaccus, who wrote the first Latin lexicon, De Verborum Significatu, most of which

The period immediately preceding that of Augustus was barren of firstrate literature. There were numerous minor writers, but under the suppressive and jealous rule of Tiberius literature could not flourish. The most notable of the prose writers were Vellius Paterculus, who wrote a com-The most pendium of Roman history; and Vallerius Maximus who made a col-lection of anecdotes, Factorum et Dictorum Memorabilium Libri. poets included Phædrus, the fabulist, Germanicus, the emperor's nephew, who translated the Phoenomena of Aratus into Latin hexameters. A more prominent figure was Lucius Annœus Seneca (4 B.C.-65 A.D.), the philosopher, whose numerous prose writings included discourses on philomanal subjects, Quas-

letters. The) him (Medea. Œdipus, etc.) in Latin litera-

ture which have come down to us. Seneca's nephew, M. Annæus Lucanus (39-65 A.D.), wrote an unfinished epic poem in ten books on the struggle between Cæsar and Pompey, entitled Pharsalia. Aulus Persius Flaccus (34-62 A.D.), the friend of Lucan, left six vivacious Satires, which still retain their interest. After the death of Nero (68 A.D.) a more serious tone was reflected in literature. During the reign of Vespasian the only writers of any note were Plinius Secundus (23-79 A.D.) of Pliny the Elder, whose Historia Naturalis is a storehouse of learning and C. Valerius Flacous, the author of an unfinished poem, Argonautica, who endeavoured to maintain the tradition of the Virgilian style. In the reign of Domitian, there began a revival of letters. The most original genius of his age was M. Valerius Martialis (c. 40-102 A.D.). Martial was the creator of the epigram in its modern sense. His satire in-variably had a sting in the tail. He combined a brilliant and caustic wit with the metrical skill of Ovid, but his poems are frequently marred by his fulsome flattery of men in high place and by his vulgar lack of reand Papinius Sta

left two mytholog and Achilles, who here and there by

here and there by and a collection of shorter poems, entitled Silvæ. The most influential 1877; A. S. Wilkins, Roman Literature, entitled Silvæ. The most influential 1877; A. S. Wilkins, Roman Literature, 1878, A. D. Whose 1895; Tyrrell, Latin (The Training of 1889; Tyrrell, Latin remained a stande 1889; and Poets of the subject. A more complete literary revival took place in the reigns of Nerva, Trajan, and Hadrian. The Nerva, Trajan, and Hadrian. The tiquity, in Journal of Philolopy (vol. prominent figures of this so-called viii.); and Teuffel and Schwabe, Ge-

Silver Age are Tacitus, Juvenal, and the Younger Pliny, who add, 'as it were, a sunset splendour to the literature of Rome.' Cornelius Tacitus (c. 54-120 A.D.) is known principally Cornelius Tacitus by his Historia, extending from Galba to the death of Domitian, and Annales, a history of the Julian house. beginning with the death of Augustus. He also wrote an account of Germania and a beautiful memoir of his fatherin-law, Agricola, besides a dialogue De Oratoribus, his earliest extant work. Tacitus is a careful, though not an impartial, historian. His deep scorn for the emperors, whom he regards as the greatest enemies of Rome, cannot but make itself be felt. The spirit of the age is again prevalent in the work of Decimus Junius Juvenalls (c. 60-140 A.D.). He has not the good-natured cynicism of Horace. Juvenal's Satires paint with pitless scorn and moral indignation the degraded state of Roman society. Plinius Cæcilius Secundus (62-c. 113 A.D.), the nephew of Pliny the Elder, gives us in his Letters a more pleasing picture of the public, social, and literary life of his time. The only remaining literary men of note who flourished during the reign of Hadrian are Suetonius Tranquillus (c. 75-160 A.D.), fragments of whose De Vila Cæsarum have come down to us; Cornelius Fronto (100-175 A.D.), whose letters to his pupil, Marcus Aurelius, are of some interest; and Aulus Gellius (130-170 A.D.), the author of Noctes Atticae, a series of quotations and excerpts from miscellaneous Greek and Latin authors. With Gellius the literature of classical Latin is closed. For many centuries works in Latin were still produced. At the time of the Renaissance, European scholars wrote in Latin, believing that only by so doing would their work endure, and since then controversial works as well as theological and scientific treatises have been written in Latin, in order that they may be understood by educated ticence. His contemporary poets were of a secondary order. Silius Italicus all such Late Latin literature is (c. 25-101 A.D.) wrote a lengthy and outside the scope of the present uninspired poem on the Punic War, sketch. ---- on the various also Simcox,

Aterature from 33: C. T. Crutt.

schichte der Römischen Litteratur (Eng. | magnitude in both hemispheres, and

trans. by Warr, 1900).

Latin Union, a political monetary union entered into in 1865 by France, Belgium, Italy, and Switzerland, by which the amount of silver to be coined yearly was fixed for each member, in order to protect them against the relative appreciation of silver to gold, due to the gold discoveries in Australia and California. A few years later, Greece, Servia, Roumania, and some of the S. American states also joined the union. The unit of coinage was the franc. In 1874 the members agreed to suspend the free coinage of silver owing to the fall in this metal which made it de-preciate relatively to gold. See BI-METALLISM.

Latinus, the son of Faunos and of the Nymph Marica, but other legends say of Hercules and Fauna, or of Odysseus and Circe, King of Latium, father of Lavinia, the wife of Æneas. See Virgil, Æneid, vii.-xii.

Latitude and Longitude. The latitude of a point on the earth's surface is its angular distance from the degrees, minutes; and seconds (60 seconds 1 minutes; and seconds (60 seconds 2), each minute being equal to a sea-mile in length. Direct measurement is impossible, so that astronomical calculations are employed. the latitude of a place is equal to the angle between the direction of a plumb-line at the place and the plane of the equator. This is equivalent to the angle between horizontal planes at the place and at the equator, and also to the elevation of the celestial pole above the horizon. Geographical latitude, as used in maps, is based on the supposition that the earth is an oblate spheroid, of which the com-pression and the angle which the normal makes with the equator are known. It differs from astronomical latitude only in being corrected for local deviation of plumb-line. The geocentric latitude of a place is the angle which a line from the earth's centre to the place makes with the plane of the equator. The latitude of a celestial object is the angle which a line drawn from some fixed point of reference to the object makes with the plane of the ecliptic. The following is an outline of a few different practical methods used for determining the latitude of a place or ship. Astronomical hours are 24, starting from noon, so that 17 means 5 a.m.; 22 means 10 a.m., etc. (1) Observation of the stars. This method is one tion of the stars. of the easiest and quickest, as star axis of rotation of the earth. There-tables are worked out in the Nautical fore, if the points on which this axis Almanac for all stars of the first intersects the earth, i.c. the poles, are

for navigation stars of the second and third magnitudes, with the astro-nomical apparent times at which they cross the observer's meridian on the first day of each month in the year. All stars come to the meridian four minutes earlier each day. The altitude of the star on the meridian is observed, and the latitude calculated from its known polar distance. (2) Observation of the Pole Star. The true altitude of the star is observed: the local apparent time is obtained converted into astronomical time. To this is added the sun's right ascension, from the Nautical Almanac. Apply this result (minus 24, if necessary) to the table of Pole-Star corrections, and then add the degrees and minutes to, or subtract from, true altitude already determined Observations of the sun at meridian. The corrected altitude, which is called the true central altitude, is obtained by the use of the sextant, and subtracted from 90°. The zenith distance. N. or S. as the case may be, is given by the result. The angular distance of the sun from the equinoctial or celestial equator (the corrected de-clination) is then observed. If both the declination and the zenith dis-tance be the same, N. or S., add them together; if one is N. and the other S., subtract the lesser from the greater, and the result is the latitude N. or S. as the case may be. If the sun be obscured by a cloud at the meridian, an observation is taken of it as near as possible to the meridian, and its altitude at the meridian then worked out. The same principles are observed if observations are made of the moon, or a planet. (4) Observa-tion by means of an artificial horizon. This method, which is employed on land, is carried out by the aid of a basin, etc., filled with some reflecting medium, such as liquid tar, quickmedium, such as liquid tar, quick-silver, etc., and protected from the wind to keep it still. The observer should walk backwards, facing the celestial body from which observa-tions are to be made, until its image can be seen in the reflecting medium. The sextant is then brought to bear on the celestial body the image of on the celestial body, the image of which is brought down to coincide with the reflected image. The altitude of the body observed in degrees is half that shown on the sextant. From this the latitude can be calculated. Variability of terrestrial latitude.

The latitude of a point on the earth's surface is measured from the equator, which is defined by the condition that its plane is at right angles to the

with a radius of approximately 25 ft.
The theory regarding the periodicity
of the change is briefly as follows.
The fourteen months (429 days) term is a result of the fact that the axes of rotation, and of the figure of the earth, do not strictly coincide, but make a small angle (about '15" on the average) with each other. If the matter on the surface of the earth were immobile, the result of this non-coincidence would be the revolution of one pole round the other in a circle of radius '15' (15 ft.) in a period of 429 days; this is known as the Eulerian motion from the name of the man who discovered it. owing to meteorological causes the motion is subject to annual change. Apart from the statical causes, that is to say, the changes of position of the deposits of snow and ice on the earth, the causes of this change are dynamical. The statical causes change the position of the pole of figure of the earth, but to an infinitesimal and negligible degree. The dynamic causes are the atmospheric and oceanic currents. If these were invariable the effect would be the Eulerian motion, not exactly round the mean pole of figure of earth, but a point slightly apart. The currents, vary annually, and the motion of the pole of rotation varies also. The International Geodetic Association established a series of stations round the globe, as nearly as possible at the same latitude, to make similar observations, in view of the importance of the fluctuations on the importance of the fluctuations in position of the poles. The principal stations are at Carloforte, in Italy; Midzusawa, in Japan; Gaithersburg, in Maryland; and Ukiah, in California; all situated about 30° 8' lat.

The longitude of a place on the earth is the angle which the terrestrial meridian from the pole through a point on the earth's surface makes with some standard meridian. As the earth turns through 360° of longitude in twenty-four hours, if the sun is on the meridian at any place it will be at the meridian on another place 15° W. of the first in one hour. Thus 15° of longitude represent one hour of difference in apparent time; all Regne Animal, etc.
methods of determining longitude are
based on this fact. Formerly each
nation took its ownstandard meridian, of Pittsburg. Pop. (1910) 8777.
https://doi.org/10.1001/10.10 but the meridian of Greenwich is now used as the standard. In astronomy Church of. the longitude of a celestial body is the

not fixed, the position of the equator will change, and consequently the latitude. It was shown by research about the end of the 19th century to E. See The Nautical Almanac; that such a change, very minute but Imman's Nautical Tables; Gill's Text, and S. poles wander round in a circle.

Navigation and Nautical Astronomy, 1908, etc.

Latitudinarians (Lat. latitudo. breadth), the name applied to a school of English theologians in the 17th century who endeavoured to inculcate a more broad-minded and liberal spirit into the English Church. They opposed both the High Church party and that of the Dissenters, and strove to minimise the importance attached to particular doctrines and The chief representaceremonies. tives were Hales, Chillingworth, More, and Tillotson. Their movement was closely allied to the philosophical school of the 'Cambridge Platonists, and they may be considered the forerunners of the Broad Church. See Tulloch's Rational Theology in Eng-

land in the 17th Century, 1872.

Latium (It. Lazio, the country of the Latins), a div. of ancient Italy, about two-thirds the size of Wales, which extended along the coast of the Tyrrhenian Sea, south-eastward from the mouth of the Tiber, which formed the inland boundary of the N. half.

See ROME.

La Tour d'Auvergne, Théophile Malo Corret de (1743-1800), a French captain of grenadiers, native Carhaix, Brittany. He served with the Republican army in the Pyrenees and Alps, leading with great success his 'Infernal Column.' As he obstinately refused to be promoted, Napoleon bestowed upon him the 'Le Premier Grenadier de e.' He was killed at Obertitle France. France. He was killed at Oberhausen, Bavaria. He published several books on the Bretons. See Simond's Life, 1899.

La Trappe, see TRAPPISTS.

Latreille, Pierre André (1762-1833), a brilliant Frenchentomologist, native

of Brives. In 1786 he became a priest, but spent most of his leisure studying insects. During the Revolution he suffered imprisonment, but arousing interest through his entomological studies, was released. He was appointed to take charge of the insects at Jardin des Plantes, Paris, and succeeded Lamarck as professor of zoology. He wrote Genera Crustaceorum et Insectorum, the portion 'Insects and Crustacea' in Cuvier's

Latter Day Saints, see Mormon,

Latude, Henri Mazers de (1725-1805),

an adventurer, born at Montagnac, Gascony, France. He is chiefly known for his endeavour to secure a recompense and the favour of Marquise de Pompadour, by informing her of a plot, of which he himself was found to be the author. He was imprisoned in the Bastille. At the Revolution he was released as a victim of the old regime. See J. F. Barriere, Mémoires de Linquet et de Latude.

Lauban, a tn. in the Prussian prov. of Silesia, 15 m. E. by S. of Görlitz. It has an extensive cotton and linen

industry. Pop. 15,467.

Laube, Heinrich (1806-84), a German novelist and playwright, born at Sprottau in Silesia. In spite of a somewhat interrupted career, his output of dramas and novels was considerable, the most famous being Graf Essex (1856) and Montrose (1859). His romances include Die Böhminger and Der Schatten Wilhelm. L. is noted for his ability

Laud, Willia

lish prelate,

bury, born at Reading, Berks. Educated at Reading Free School and St. John's Col.

fellow in 1594, M.A.

graduated archdeacon of Huntingdon in 1615 and dean of Gloucester in 1617. In and dean of Glodesset 1.1 1621 he became prebendary Westminster and bishop of of David's, in 1626 being transferred to the see of Bath, and two years later to that of London. In 1630 he was elected chancellor to the University of Oxford, and finally archbishop of Canterbury (1633). Throughout Charles I's reign L. was one of the king's most faithful supporters. He instituted rigorous proceedings against all who refused to conform to the Church of England, and endeavoured to extinguish all forms of dissent by means of fines, exile, and imprison-ment. In 1640 he was impeached for high treason by the Long Parliament, and committed to the Tower (1641), tried in 1644, and executed in 1645. L. set himself the task of raising the English Church to its rightful position as a branch of the Church catholic. Of his works the most interesting is his Diary, 1694. See also his biography by his disciple and admirer, Heylin, under the title of Cyprianus Anglicus, and Lives by Hutton, Benson, and Simpkinson.

Laudanum, tincture of opium, is prepared by macerating opium in dilute spirit, and is a brown-coloured liquid with the characteristic smell of

infants, once common, is now recognised as dangerous, and generally it is being replaced by morphine. L. poisoning should be treated by an emetic, for which purpose apomor-phine is best. The stomach should be washed out by a salt solution and caffeine introduced by the mouth or in the form of strong coffee per rectum. The patient should be kept awake and walked about if possible. Failing this, artificial respiration should be

resorted to. Lauder, a royal burgh of Berwick-shire in Scotland, is situated on the R. Leader. It was the historical scene of the brutal murder of Robert Cochrane and six others before King

James III. in 1482. Pop. (1911) 659. Lauder, Harry (b. 1870), a famous Scottish comedian and singer, born at Portobello. His first success was in Belfast, Ireland, and since then his inimitable impersonations of Scottish characters on the vaudeville stage (especially at the Tivoli) have won him deserved popularity. He has written both words and music of many of his songs—'Stop yer ticklin', Jock,' 'Ma Scotch Bluebell,' 'Roamin' in the Gloamin', and 'A wee Deech an Doris' being some of his best. L. first went to America in 1907, and is a great favourite there.

Lauder, Sir Thomas Dick (1784-1848), a Scottish author, born at Fountainhall, Haddingtonshire, Scotland. His talents were versatile. land. His talents were versatile. He was secretary to the Board of Manufactures and of Fisheries (1839-48). He published: The Wolf of Badenoch; The Parallel Roads of Glenroy; Account of the Great Moray Floods of 829; 'Scottish Rivers,' in Tail's Magazine; Tour Round the Coast of Scotlers. Scotland.

Lauder, William (c. 1710-71), the notorious would-be detractor Milton's honesty and literary achievements. He wrote An Essay on Millon's Use and Imitation of the Moderns in his Paradise Lost, in which he used falsified quotations from Massenius, Staphorstius, Taubmannus, etc., to prove plagiarism on the part of Dr. Douglas exposed L., and Milton. Dr. Johnson made him sign a retraction.

Lauderdale, John Maitland (1616-82), second Earl and first Duke of Maitland, born at Lethington (Lennoxlove), near Haddington. At an early date he was regarded as a rising hope of the ultra-covenanting party, and in 1643 became an elder in the assembly at St. Andrews, being named one of the commissioners for the Solemn League and Covenant. opium. It is administered as a in 1645 he succeeded his father as soporific and for relief in gastric roubles. Its use in the case of young he followed Charles to Worcester In 1645 he succeeded his father as In 1651

Scottish Secretary of State at the Restoration, and laboured with un-ceasing persistence to bring about the absolute power of the crown in church and state. He was a member of the Privy Council, and had a seat in the Cabal ministry. In 1672 he was created duke. Intrigues were levelled against him in 1674, and in 1678 a vote was carried in the Commons asking for his removal from the royal presence, which, however, was thrown out. His chief aim was to keep Scottish affairs in Scottish hands. Chief authorities for his life are: Baillie's Letters and Journals, Mac-kenzie's Memoirs, and the Lauderdale papers in the manuscripts room at the British Museum.

Lauds, see Breviary.
Lauenburg: 1. A tn. on the Elbe,
25 m. S.E. of Hamburg, Germany, formerly capital of the duchy. Here are ruins of the 12th century ducal are rums of the 12th century ducal palace. Pop. 5009. 2. A tn. on the Leba in the prov. of Pomerania, Prussia, 38 m. W.N.W. of Danzig. Trade in woollens, linen, leather, machinery, and matches. Pop. 13,847.

Saxe-Lauenburg, Lauenburg, or Saxe-Lauenburg, Duchy of, a well-cultivated and fertile Lauenburg, district of Schleswig-Holstein, Prussia. It was formerly united with Holstein under the crown of Den-Holstein under the crown of Denmark, but by the Treaty of Gastein (1865) it was ceded to Prussia. The inhabitants are engaged in agriculture and cattle raising. Chief towns, Lauenburg and Ratzeburg. Area 453 sq. m. Pop. 53,000.

Laughing Gas, see ANÆSTHESIA and NEWSCHEST.

NITROGEN.

Laughing-jackass, or Great Kingfisher, the popular name of the species of Dacelo, an Australian genus of coraciliorm birds belonging to the family Alcedinide. They are so called because of their extraordinary gurgling note. D. gigas, the principal species, has brown plumage, with a white stripe on each side of the head. It nests in shady forest regions, but will also frequent the vicinity of houses. Its diet consists of insects, reptiles, molluses, etc., and occasionally it will devour small mammals or birds.

Laun, a quaint town, Bohemia, Austria, at the S. base of the Erzgebirge, 35 m. N.W. of Prague. Chief industries are connected with iron goods and sugar. Pop. 11,484.

Launce, see SAND LAUNCE.

Launceston: 1. (ancient Dunne-heeved) A municipal bor., Cornwall, England, 22 m. N.W. of Plymouth, It played a part in the Civil War.

where he was taken prisoner, and de-tained for nine years at the Tower, 2. The chief tn. of Northern Tas-Windsor, and Portland. He became mania, beautifully situated in a mania, beautifully situated in valley at the confluence of the N. and S. Esk rivers. It has important trade with S. Australia, and is the official and judicial cap, of the N. Pop. with suburbs, 48,300.

lanchar, Launch (Malay auick. speedy), a name given to one of the largest size of ship's boats, or to a

boat propelled by electricity or steam.

Laundries (Lat. lavenda, things to be washed, lavare, to wash), establishments for the washing of soiled body and table linen. Laundry-work has now become an important industry and is organised on a scale very different from former days, requiring elaborate mechanical plant to replace the simple appliances once considered sufficient for domestic requirements. Articles formerly rubbed by the hands of the laundress, or stirred and beaten with a 'dolly (viz. a wooden rod with a series of spokes at the lower end and a crossbar handle at the upper), are now commonly treated in rotary washing-machines driven by power. The best type of rotary consists of an outer cylinder of wood or metal containing an inner horizontal cylindrical cage, in which the clothes are placed. Then the doors are closed, the machinery is set in motion and steam is admitted, the clothes being tumbled on each other in the soap and water contained in the outer casing, which enters the cylinder through perforations. The clothes are soaked in alkaline water, washed, boiled, and rinsed, all with-out removing them from the machine. Next comes the process of drying. The linen is taken from the machine and placed in a washer or centrifugal extractor, which consists of a perforated copper basket revolving rapidly inside an iron or steel case. The water is thrown out through the perforations in the basket by centrifugal force and the linen is ready to be taken out in about twenty minutes, the drying being completed in an apartment through which dry air is apartment through which dry air is forced by fans. The next item is the ironing, many forms of machines being employed for this important part of laundry-work to enable the laundress to deal with articles of different shape. The machines, however, generally consist of a polished metal roller, heated by gas or steam, working against a felted surface in the force of another roller or det the form of another roller or flat table; or (Decoudun type) of a felted metal roller rotating against a heated concave bed of polished steel. Hand-ironing, notwithstanding, is still very It played a part in the Civil War. general, and time is saved by con-There are copper mines and ruins of tinuously heating the irons by means

(New York) was the original centre of steam laundry interests in America.

La Union (ancient Herreria), a tn., Spain, prov. of Murcia, 6 m. E. of Cartagena. Iron manganese, calamine, sulphur, silver, and lead are mined. Pop. 30,000.

Laura (λαύρα, alley, possibly from Latin lura, mouth of a bag), a name given to a number of cells which were inhabited by ascetics or monks in the deserts of the East. St. Charito appears to be the first to have founded

a laura.

La

Lauracem, an order of dicotyle-donous plants containing over 1000 They are all evergreen trees species. and shrubs, many are aromatic, and the climate they prefer is a temperate one. The inflorescence may be either racemose or cymose, the flower is hermaphrodite or monœcious, and usually in parts of three; the ovary is unilocular, and has one ovule; the Two of the chief fruit is a berry. genera are Cinnamomum and Laurus.

Laurahütte, a tn. in Silesia, Prussia, and owns huge iron works. It is 5 m. S.E. of Beuthen. Pop. 16,118.

Laureate, Poet (Lat. laureatus, from laurea, the laurel tree), a title con-ferred by letters-patent from the English crown on the poet attached to the royal household. Its origin is involved in some obscurity. In ancient Greece the laurel wreath formed the crown of honour of poets and heroes, and thus the word 'laureate' came to and thus the word laureauc came to mean in English' eminent, generally, though not always, in a literary sense. The mediaval kings had poets or minstrels attached to their house-holds who received pensions, thousethe appointment was not official. In this way Ben Jonson was looked upon as the first L., but the title seems never to have been really conferred upon him, John Dryden being the first English poet to receive the title by letters-patent in 1670. From this time onwards the post became a regular institution, the most celebrated Ls. being Southey (1813-43), Wordsworth (1843-50), Tennyson (1850-92), and Alfred Austin (1896-1913). Dr. Robert Bridges now (1913) holds the position. The P. L. generally preduces formuland appropriate ally produces formal and appropriate verses on public and state occasions, though the custom at the present day is not obligatory. See W. Hamilton's Poets Laureate of England.

Laurel, a term properly applied to the two species of Laurus, the chief genus of Lauracem, but it is also used in a compound name of other plants, e.n. cherry-L. (Prunus), spurge-L. Amiens. He also w (Daphne), and seaside-L. (Phyllan-llus). L. nobilis, the true L. or sweet commanded the rea bay, is to be found round the Mediter-

of gas or electricity. The city of Troy ranean, and its aromatic leaves are used in condiments; L. canariensis is a native of the Canary Islands.

Laurel, Cherry, or Prunus Lauro-cerasus, a species of Rosaceæ, closely allied to the bird-cherry, almond, and plum. See CHERRY.

Laurencekirk, a tn., Kincardine-shire, Scotland, 26 m. S.S.W. of Aber-deen. Pop. (1911) 1438. Kincardine-

Laurent, Auguste (1807-53), an eminent French chemist, born near Langres, France. L. is chiefly noted for his discoveries with Gerhardt in connection with the homologous series and the theory of types. He was appointed professor of chemistry at Bordeaux in 1838, and warden of the mint, Paris, in 1848. L. did important research work in naphthalin, paraffin, and phenol.

Laurentum, cap. of the ancient kingdom of Latium, Italy (q.v.). L. was made the chief tn. of the kingdom under Latinus, the first king. Later, the capital was changed to Lavinium, and again to Alba.

Lauria, a city of Potenza prov., Italy, 42 m. S. of Potenza. Pop.

10,000.

Laurier, Sir Wilfrid (b. 1841), a Canadian politician and statesman, born at St. Lin, L'Assomption co., Quebec. Educated at L'Assomption College and M'Gill University, where he studied law. From 1865-66 he was vice-president of the Institut Canadien (Montreal). In 1871 he entered parliament, and was quickly recognised as the Liberal leader in Quebec province. 1874 he became a member of the Federal Assembly, and in 1877 was a minister of Inland Revenue in the Mackenzie ministry. In 1878 he was defeated at the General Election, but re-elected in 1882, 1887, 1891, and 1911. In 1896 he became the first French-Canadian Premier of the Dominion, in which post he observed a policy of discrimination in favour of British products and of protection against the United States. His party was defeated in 1912. See Willison, Sir Wilfrid Laurier and the Liberal Party, 1903.

Laurine, the fatty principle of laurel-berries; in appearance it is crystalline, and to the taste it is bitter.

Lauriston, Jacques Alexandre Bernard Law, Marquis de (1768-1828), a general, and ultimately Marshal of France, born in Pondicherry, India. He distinguished himself in the Republican army campaigns, becoming aide-de-camp to Napoleon in 1800. In 1802 Napoleon sent him to England with the ratified treaty Amiens. He also went on diplomatic missions to Denmark and Russia. He commanded the rearguard in the reLaurium, a tn. in Houghton co., course, thus disturbing the evenness Michigan, U.S.A., 42 m. N. of L'Anse. of the original surface and forming Here is situated one of the largest loose blocks of material. copper mines in the U.S.A. Pop. Lavadores, a tn. in the prov. of (1910) 8537.

Laurium, a mountain in the S. of Attica, Greece. In ancient times its silver mines produced large supplies, but became exhausted. During the second half of the 19th century, however, they were again worked, and silver, lead, cadmium, and man-During the ganese were found. There is a railway connection between these mines and Athens.

Laurvik, a seaport in the prov. of Lauvik, a scapior and a standing on a fjord to the S.W. of Christiana. It is noted for its sea baths, while among its industries are shipbuilding. It

exports timber among other products. Pop. 10,151.

Lausanne, the cap. of the canton of Vaud, Switzerland, on the N. shore of Lake Geneva. It has a very fine cathedral dating back to the 13th century, a university, a museum of natural history, and an art gallery. It is the seat of the Federal tribunal, and was the residence of Gibbon, who wrote part of his Decline and Fall of the Roman Empire here. It! manufs. tobacco, mac chocolate. Pop. 63,926. machinery, and

Lausitz, see Lubatia. Lauterbrunnen, a vil. and valley in the canton of Bern, Switzerland. village stands on the White Lü chine R., about 6 m. S.E. of Int laken, and in the valley of Laut brunnen, famous for its scenery a its waterfalls, the largest being L. is with 2600. Staubbach, over 800 ft. high. connected Mürren an

Lauzun, mont, Mar (1632-1723 XIV. soldier, a He was involved in many court intrigues with Mme. de Monaco, Mme. de Montespan, the Duchess

of Montpensier, etc., and was several times imprisoned. In 1685 he came to England and served James II. for many years.

Lava, the substance which is emitted in a liquid state from the crater of a volcano. Ls. are divided into different classes, the quality of the L. depending on the amount of silica which it contains. Those which are known as 'basio' contain less silica than the others, and conse-quently flow for much greater distances, as they take much longer to solidify. The exterior or crust of a stream of L. cools quickly when exposed to the air, and the molten L. exposed to the air, and the molten L. an old cathedral. Pop. 6400, which is underneath often breaks Laveleye, Emil Louis Victor, Baron through this crust and continues its de (1822-92), a political conomist,

Lavadores, a tn. m the prov. of Pontevedra, Galicia, Spain, situated on the coast. Pop. 15,000.

Laval, the cap. of the dept. of Mayenne, France, on the Mayenne, 45 m. E. of Rennes. It possesses a cattle and authorial. It is also are castle and cathedral. It is all gaged in the manuf, of linen. 30,000. It is also en-

La Valetta, see VALETTA. La Vallière, Françoise Louise de abaume Le Blanc, Duchesse de Lebaume Le (1644-1710), the famous mistress of Louis XIV. When Athénais de Montespan became a royal favourite, La V. retired to a Carmelite numbery in Paris, where she lived the remaining thirty years of her life. She published Refl

Dieu par See Lives and Jules Laval -Xavier de Canadian France. E

vicar of t Bishop of founded the seminary of Quebec (1663). From 1674-83 he was titular bishop of Quebec. Laval University

(Quebec) is named after him. Laval University, a French Catholic

in 1852 at maintained by By a papal institution was the supervision

the supervision, the record of the Pro-L. is paganda at Rome, and is controlled with by a council composed of the arch-2600. bishops and bishops of the province Cau-of Quebec. There are faculties of uc de theology, law, medicine, and arts, and and the usual degrees are conferred.

Lavater, Johann Kaspar (1741-1801), a Protestant clergyman and writer, a native of Zürich. After finishing his education he took orders in the Protestant church in 1762 and was afterwards appointed to the church of St. Peter. He had before this, however, begun his career as a writer by a book of Swiss poems called Schweizerlieder (1767). His other works are Aussichten in die Ewigkeil, 1768-78, and Physi-ognomische Fragmenle zur Beforderung der Menschenkennlniss und Menschenliebe, 1775-78; the latter being his greatest work on physiognomy.

Lavaur, a tn. in the dept. of Tarn, France, situated on the Agout, 25 m. E. by N. of Toulouse. It is engaged in the silk manuf., and possesses

born at Bruges. After studying at Ghent he was made professor of political economy at Liège (1864). Among his chief works are: De la Propriété et de ses Formes primitives, Le Socialisme contemporain, 1881 ; Eléments d'Economie politique. He also contributed articles to reviews of various countries. See Life by

A. J. Goblet, Count d'Alviellas, 1895. Lavender, the name given to the various species of the labiate genus Lavandula, which consists of hoary, narrow-leaved, fragrant bushes, in-habiting S. Europe, the Canaries, Barbary, Egypt, Persia, and W. India. The flowers are generally blue, and yield much honey to bees. L. vera, the common L., and L. spica, the spike L., are the two best known species, and yield the oil used in the manufacture of L. water.

Laver was, in the tabernacle of the Jews, a vessel of brass, used by the priests at the time of sacrifice for

cleansing purposes.

Lavery, John, A.R.A. (b. 1857), a portrait painter, native of Belfast, ireland. In 1883 his 'Two Fishers' was exhibited in the New Salon, and 'The Tennis Party' (Munich Pinakothek) at the Royal Academy (1887). His best known works are: Mother His best known works are: 'Mother and Son'; 'White Feathers'; 'A Lady in Black.' 'The Visit of Queen Victoria to the Glasgow Exhibition'

(1888) is hung in the Glasgow Gallery.
La Villemarqué, Théodore Claude
Henri Hersart, Vicanto de (1815 05).

a French scholar One of his earlies tion of Breton 1839. Among l:

Contes Populaires des Anciens Bretons. 1842; Poemes_des Bardes Bretons, Poèmes Bretons du Moyen-age. He also edited Dictionnaire Français-Breton, 1857.

Lavinia, in Roman mythology, was the daughter of Latinus, a king of Latium, and the wife of Æneas.

Lavinium, an old Roman in. of Latium, Italy, 16 m. S.E. of Rome. In the time of the Emperor Trajan Laurentum was united with L. The modern town on the site is called Pratica.

Lavisse, Ernest (b. 1842), a French historian, born at Nouvion - en -Thiérache. In 1888 he was made professor of modern history at Paris, and elected a member of the French Academy in 1892. Among his works are: Eludes sur l'histoire de Prusse, 1879; La Jeunesse du Grand Frédéric, 1891; Trois Empereurs d'Allemagne, 1888; Histoire de France depuis les origines jusqu'à la Revolution, 1900; and in collaboration with A. N. Rambaud, Histoire pénérale du l'Ie Siècle à nos Jours, 1893-1901.

Lavoisier, Antoine Laurent (1743-94), the founder of the modern system of chemistry, born in Paris, and in 1768 became a member of the Academy, and just after was appointed fermier-ocneral. His chief theories and discoveries are those connected with combustion, as he showed that in the process the substance was united with the oxygen of the atmosphere. To him also is due in a great measure the modern system of naming in chemistry. During the Reign of Terror, in spite of what he had done for France, L. was regarded with the same suspicion as the other fermiers, and was guillotined. He wrote Traité Elémentaire de Chimie, 1789. See Biog. Sketch by Edouard Grimaux (1895).

Lavoro, Terra di, a part of Italy now forming the prov. of Caserta (q.r.).

Lavos, a tn. in Boira, Portugal,

on the Mondego R., and about 24 m. S.W. of Coimbra. Pop. 8000.

Law. Two ideas may be said to be connoted by the term L.: (1) command, (2) order. The former is implicit in the body of principles observed and acted upon by the state in the administration of justice. The English school of analytical juris-prudents, of which Austin was the head, defines positive law as a com-mand imposed upon an inferior by a superior. Modern thought regarding sovereignty, as inherent in the people and government as resting purely on consent, denies the validity of this definition, and perhaps the following definition by Professor Holland is more in accordance with fact: in general is the sum total of those general rules of action as are enforced by a sovereign political authority' (see on this Legislation, Junispru-DENCE). The continental jurists re-gard positive L. (positus, i.e. settled by man) as only a narrow species of L. proper, and when talking of L. in the abstract deviate into scientific conceptions of rights and justice, giving to morality a positive force disguised under the name of 'natural laws.' The connotation of order is uppermost in ancient nomology (Gk. róµos, law). Classical jurists and philosophers, observing an in-

red the notion of a supreme lawgiver, to activities of a universe moving according to law. The earlier recognised no separation of varied phenomena into physics, theology, ethics, and jurisprudence, but deemed every-thing to be of divine contrivance; the later distinguished between sciences

relating to external nature and those

to the

deity,

idea of rules regulating the actions of See Holland's Jurisprumankind. dence, Austin's Jurisprudence, Kant's Philosophy of Law, and Bentham's Traité de Legislation.

Law, Rt. Hon. Andrew Bonar (b. 1858), a British politician, born at New Brunswick. He was formerly an iron merchant of Glasgow, and chair-man of the Glasgow Iron Trade Association. He was returned to parliament in 1900 by the Blackfriars Division of Glasgow, and was appointed Parliamentary Secretary of the Board of Trade (1902-6). From 1906-10 he represented the Dulwich Division of Camberwell, and since 1911 has been M.P. for Bootle. On the resignation of Mr. Balfour in 1911 he was chosen Leader of the Opposition. Law, Edmund, D.D. (1703-87), Bishop of Carliele. After graduating

at St. John's College, Cambridge, he was elected fellow of Christ's College (1727), and ten years later was presented by the university to the rectory of Graystock in Cumberland. In 1743 he became archdeacon of Carlisle, and returned to Cambridge in 1756 as master of Peterhouse; he was appointed librarian to the university in 1760, and Knightbridge professor of Moral Philosophy in 1764; and be-came bishop of Carlisle in 1768. He was an earnest student of Locke, whose works he edited in 1777. own most important philosophical work is Considerations on the State of the World with regard to the Theory of

Religion, 1745.

Law, John (1671 - 1729), originator of the 'Mississippi Scheme,' was born at Edinburgh. Having killed his antagonist in a duel, he fled to Holland in 1694, where he studied banking, and in 1700 proposed to the Scottish parliament a system of paper currency. In 1716 he set up a private bank in Paris, and soon after-wards persuaded the Regent to found a national bank, which issued bank-notes and raised the credit of the government. His Mississippi scheme, which was at first enormously popular, proved a disastrous failure, and L. fled from Paris in 1720, and died in poverty at Venice. See Thiers, Law et son système des finance, 1826, and a Life by Wood (1824).

relating to human activities, but L. Library, Edinburgh, and was one of was the common term, denoting in the one the method of the phenomena of the founders of the Scottish History Society. Author of The Conflicts between Jesuits and Seculars in the reign of Queen Elizabeth, 1889; Catholik Tractates of the Sirteenth Century, 1901; Collected Essays and Reviews, 1904, etc.

Law, William (1686-1761), an English divine, born at Kingscliffe in lish divine, born at Kingscliffe in Northamptonshine. In 1711 he was ordained and elected fellow of his college, but on the accession of George I., being unable to take the oath of allegiance, he forfeited his fellowship, and became a non-juror. About 1727 L. became private tutor to Edward Gibbon, father of the historian. After the death of Edward Gibbon (1737), L. retired to Kingscliffe. where he was joined Kingscliffe, where he was joined by Mrs. Hutcheson, a widow, and Miss Hester Gibbon, who devoted themselves to charitable works and holy meditation. L. was a keen dialecnon memoaron. L. was a keen dialectician His controversial writings include Three Letters to the Bishop of Bangor, 1717; Remarks on Mandeville's Fable of the Bees, 1723 (republished by F Case of Rea to Tindal's '

Perfection,

Creation.

Creation.

to a Devo
which had a profound influence on
the leaders of the Evangelical Revival, and moved Dr. Johnson and
Lord Lyttelton and Gibbon, still remain the most popular of L.'s works.
The influence of Jacob Boehme is
seen in the mysticism of his later
works, The Spirit of Prayer, 1749,
1752; The Way to Divine Knowledge,
1752, and The Spirit of Lore, 1752,
1754. See C. Walton's Notes and
Materials for a Complete Biography of
W. Law, 1848; Canon Overton's
William Law, Nonjuror and Mystic,
1881; Dr. Whyte's Characters and
Characteristics of William Law, 1892;
and Moreton's collected edition of
Law's works, 1893.

Law-burrows, in Scots law are

Law-burrows, in Scots law are official documents or letters obtainable by a person who apprehends personal or proprietary damage at the hands of another. The letters order the person specified to give security to keep the peace under a penalty, the amount of which varies according to the rank of the offender. On the execution of the L., the and a Life by Wood (1824).

Law, Thomas Graves (1836-1904), a Scottish historian and bibliographer, born at Yeovillon in Somersetshire. Under the influence of Father Faber, the entered the Brompton Oratory in 1855, but left the Church of Rome in 1878. In the following year he was appointed curator of the Signet tion of L. for the stipulated penalty. Law Courts, see County Courts, Court of Session, Royal Courts

of Justice, Supreme Court, etc. Lawes, Henry (c. 1596-1662), , was a pupil of Coperario, composer. and in 1626 became a gentleman of the chapel. In 1633 he, with Simon Ives, wrote the music for a masque which was played at Whitehall, and in the next year composed the music for Milton's Comus. He wrote, among other works, Choice Psalms put into Music for Three Voices, 1648. Lawes, Sir John Bennet (1814-1900),

an agriculturist, was educated at Eton and Oxford, and after spending some time in the study of chemistry, began in 1834 a regular system of agricultural experiments. These he carried on at Rothamsted, on the family estate. Soon after, however, he opened works near London for the purpose of producing a mineral superphosphate to be used as a manure. He was assisted in his efforts, both literary and agricultural, by Dr. Gilbert. He became a fellow of the Gilbert. He became a fel Royal Society in 1854, and the recipient of numerous medals.

Lawfeldt, or Laveld, a vil. of Belgium, situated near Maestricht, in the prov. of Limburg. Here in 1747 the Duke of Cumberland was defeated by the French.

Law Merchant. The L. M., or Lex Mercatoria, was a branch of the Law of Nations (see Jus Gentium), and its principles were those which regu-lated the affairs of commerce. It was very old-established, largely rooted in mercantile customs, and administered by special courts outside the jurisdiction of the common law. Under the celebrated Chief Justice Lord Mansfield, the special courts gave place to the common law courts, and the floating customs of the L. M. were crystallised into a system and incorporated into the body of the common law. English mercantile law (the term L. M. is never used at the present day) no longer pays any regard to international customs. relying solely on English trade usage. Any fresh custom which satisfies certain conditions will become part of the law, e.g. certain instruments may by custom become negotiable (see Customs and Mercantile Law).

Lawn, a fine linen (q.v.). Lawn Tennis, a game played by two to four persons with a racquet and ball across a net stretched over a court. It is an out-of-door summer game, and may be played on a grass lawn, on asphalt, cinders, or gravel. In winter the game may be played indoors on a 'covered' court. The court must be kept perfectly smooth and firm, and is marked with righthand and left-hand courts and a service

line. A court should be 78 ft. long and 36 ft. wide for a double game, 27 ft. for a single-handed game. In a singlehanded game, the server must stand behind the base-line, beginning the game from the right-hand court and afterwards serving from alternate courts. He must serve the ball diagonally across the court so that it falls within his opponent's servicecourt or upon the lines enclosing the service-court. If the ball touches the net, the service otherwise fulfilling the above conditions, it is counted as a 'let,' and the server serves again from the same court. If the server fails to fulfil any of the above conditions, the service is a 'fault.' Two faults count a point to the opponent. If the first service, however, fulfils the required conditions, it 'counts,' the server may not serve again, and his opponent or the 'striker-out' must hit back the ball after the first bounce. Afterwards the ball may be volleyed on either side, or it may be hit after it has touched the ground once. If either player fails to hit the ball over the net, or only hits it after the second bounce, or hits it so that it falls outside his opponent's bounding-lines, his opponent wins a point. In a fourhanded game, the service is returned alternately by the two opponents, who keep to the same side of the court who keep to the same state of the court throughout the game. The service is arranged so that each player serves one game out of four; thus, if A and B play C and D, the order of service is A C B D.

The method of scoring .-- A player on winning his first point counts 15; on his second, 30; on this third, 40. If he wins a fifth stroke, before his opponent has reached further than 30, the game is his. If, however, both players have won three strokes, the score is 'deuce.' Whoever wins the score is 'deuce.' next st 1 10 if he is

is the ot comple n two points in succession after ' deuce. The player who first wins six games

wins a set. Consult F. W. Tennis Players and Tactics, 1906, and A. W. Myers, The Complete Lawn Tennis Player, 1908. Lawrence: 1. A city and cap. of

Essex co., Massachusetts, U.S.A., on both sides of the Merrimac R., 26 m. to the N. of Boston. It has some of the largest mills in the world, the 28 ft. fall of the river and a large dam providing excellent facilities for working The manufactures include them. cotton, woollen cloth, and paper as well as steam engines and machinery. Pop. (1910) \$5,892. 2. A tn. in New Zealand, on the South Island, with rich gold mines near. Pop. 1100. 3. The cap. of Douglas co., Kansas, 1912 sheleft the union because sheand U.S.A., on the Kansas R. It possesses the Kansas University, and dissented from some of heavy the Kansas University and dissented from 1913 she was hand manufs, of paper, flour, carriages, joint-editor with Mr. L. of the paper has manufs. of paper, flour, carriages, and iron. Pop. (1910) 12,374.

Lawrence, Sir Henry Montgomery (1806-57), a British soldier and statesman, elder brother of the first Lord L.

was born at Matara in Ceylon. He joined the Bengal Artillery at Dum Dum in 1823, and took part in the first Burmese War (1828), the first Afrhan War (1838), and the Sikh

self was mortally wounded by a shell on July 2, 1857, and died two days later. See Life by Sir Herbert Edwardes and Herman Merivale (1872-73), and by McLeod Innes (1898).

Lawrence, John Laird Mair, Lord 811-79), viceroy and governor-(1811-79), viceroy and governor-general of India, was born at Richmond, Yorkshire. He entered the Indian civil service in 1829, and acted as magistrate and land revenue collector in the neighbourhood of Delhi. On the annexation of the Punjab, he was appointed chief commissioner and afterwards lieutenant-governor, and succeeded in establishing order and winning the affection of the once of the Mutiny reached him, he raised a new army of 59,000 men, and after a siege of three months captured Delhi. On his return to England (1858), the 'saviour of India 'was created a baronet and granted a life His day is Aug. 10. See ESCURIAL pension of £2000 a year. He suc- Lawrence, St., River, see St. pension of \$2000 it year. He succeeded Lord Elgin as governor-general of India (1863), and was pro-moted to the House of Lords in 1869. See his Life by Bosworth Smith (1885), Sir Richard Temple (1889), and Sir Charles Altchison (1892).

Lawrence, Mrs. Pethick, an English leader of the 'Suffragette' (i.e. Women's Suffrage) movement. Emmeline Pethick was born in Bristol,

'militant' tion, the held till I

founded by them, Votes for Women.

Lawrence, Sir Thomas (1769-1830), Lawrence, Sir Thomas (1769-1830), an English portrait painter, born at Bristol. He entered the Royal Academy in 1787, and was elected an associate in 1791, and a full member in 1798. He succeeded Reynolds as principal painter to the king (1792), and became the fashionable portrait painter of his age. From 1820 till his death he was president of the Royal Academy. A representative collection of his work may be seen in the tion of his work may be seen in the Waterloo Gallery, Windsor. See D. E. Williams' Life and Correspondence of

Sir T. Laurence, 1831; Gower's Sir T. Laurence, 1900; and Layard's Sir T. Laurence, 1900; and Layard's Sir Thomas Laurence's Letter Bag, 1906.
Lawrence, Sir William, first
Baronet (1783-1867), an English Lawrence, Sir V aronet (1783-1867), Baronet (1783-1867), an surgeon, born at Circneester. He became demonstrator in anatomy at St. Bartholomew's Hospital (1801), member of the College of Surgeons (1805), F.R.S. (1813), assistant-surgeon (1813), surgeon (1824-65), surgeon (1813), surgeon (1824-65), and lecturer on surgery (1829-62). At St. Bartholomew's. His most important works are: Treatment of Hernia, 1806: On the Venereal Diseases of the Eye, 1831; and lectures on anatomy (1816 and 1819), and on surgery, 1863.

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Lawrence, St. (d. c. 258 A.D.), an early Christian martyr. He is said to have been born at Huesca in Spain, and in the pontificate of Sixtus I. he became a deacon at Rome, and was called upon by Valerian to deliver up the church treasures. He brought forward the poor and the sick as his treasures, and was condemned to suffer death by burning on a gridiron.

LAWRENCE.

Lawrenceburg, a city, and cap. of Dearborn co., Indiana, U.S.A., 22 m. W. of Cincinnati. Brewing, distilling, and the manuf. of flour are the chief industries. Pop. (1910) 3930.

Law Reports are to be distinguished from the reports of legal proceedings in newspapers. L. H. are concisely written accounts of the arguments meline Pethick was born in Disson, and after several years of social work and judgments in such cases before in the East End of London, married the courts as involve in their decision Mr. F. W. Lawrence, editor and proprietor of the then London evening application or the extension or limitapaper, The Echo. Became, with her thousand, a socialist, and in 1906 was reports are essential in any system which pays regard to precedent and recognises the value of judiciary or judge-made law. There are in

tion, the first the present day multi-been imprisoned for events connected tudinous reports both private and with the suffragette agitation. In official. Among the best of the un-

official reports are those of the Law 1903 to 1905 the Camborne Division, Times, The Law Journal, The Justice of the Peace, and Times, cited respectively as L.T.R., L.J., J.P., introduced a local veto bill which and T.L.R. The abbreviated citaand T.L.R. The abbreviated citations of the official reports are A.C. (appeal cases), L.R.K.B., and L.R.C.D., with the year and number of volume preceding. The official law reports only commenced on Nov. 2, 1865, and their institution was due to the exertions of W. T. S. Pariel (C. carrett courts courts only commenced on the carrett courts courts are the courts of the carrett Daniel, Q.C., a former county court judge. Law reporting is an art requiring considerable legal training and an acute eclectic power. Many barrister-reporters of the Council of Law Reporting have subsequently acquired judicial or professional distinction. There are also the official Irish reports, but the various Scottish L. R. published for the faculty of advocates are not official. The Indian L. R. are published under the authority of the includes jurists, judges, parristers usel, and solicitors, though

A similar system of federal and states reports has reached its full development of the U.S.A. It is to be observed that official L. R. have, as such, no superior title to judicial respect to such unofficial reports as have gained

a first-rate reputation.

Laws, Robert, M.D., D.D., F.R.G.S. (b. 1851), a missionary in Africa, born in Scotland. He took his medical degree, and was also ordained to the United Presbyterian Church. This church offered his services as one of those to go out to Africa on the mission in memory of David Living-stone. In 1875 he, with others, set out for Nyasaland, and it was chiefly due to his efforts that the mission station of Livingstonia was founded there. See James W. Jack, Daybreak in Livingstonia, also Livingstonia.

Lawson, Cecil Gordon (1851-82), a landscape painter, born at Wellington, landscape painter, born at Wellington, Shropshire. He began painting at a very early age, and in 1866 made a sketching tour in Kent, Surrey, and sussex. His pictures were first hung at the Royal Academy in 1870; after this, however, several of them were rejected, and in 1875 he sent up a much larger work, entitled 'The Hop Gardens of England,' painted at Wrotham in Kent. This also was refused until the following year. 'The Minister's Garden,' was one of the first pictures to bring him fame. See Memoir by E. W. Gosse, 1883.

Lawson, Sir Wilfred, second Baronet (1829-1906), a politician, was first re-

provided that the public-houses in any district should be closed where two-thirds of the inhabitants ex-pressed a wish to this effect. The bill, of course, was thrown out by a great majority. In 1867 he succeeded to the baronetcy. Very sincere, he urged his views alike in the House as on the platform in a simple style, strongly tinged with humour. Denounced as a faddist, he was nevertheless always listened to in the House. There is a Memoir by G. W. E. Russell, 1909. Law Terms, see TERMS.

Lawyer, a generic term embracing any one versed in the law, or who follows the profession of the law, or practises in the law courts. It now

> y there were also attorneys, pleaders, and proctors. At-

s of the civil and canon law, but by the Judicature Act, 1873, they were denominated solvents. were denominated solicitors, a term once appropriated exclusively to a legal agent who practised in the courts of equity. Special pleaders were those members of the Inns of Court, whose occupation was confined to giving opinions, and drawing pleadings. These functions are now performed by counsel in the ordinary course of their duties. Proctors, who were analogous to solicitors, and practised in the Court of Arches, are now classed as solicitors.

Layamon, Laweman, or Lagemann (M.E. Lazamon, judge, juror) (fl. c. 1200), an English priest, famous as the author of a semi-Saxon para-phrase of Wace's poem, Roman de Brut (1155). A poetical version of the legendary history of Britain, it re-counts the doings of Brutus (Brut), great-grandson of Eneas, his landing in Britain, and the history of the land down to Cadwalader's death. Two valuable MSS, are in the British Museum and week are in the British Museum, and were edited with translation by Madden (1847). See Marsh. Origin and History of the English

Language, 1865.
Layard, Sir Austen Henry (1817-94), an English archeologist and diplomatist, noted for his discoveries in Asiatic Turkey. He began his excavations at Ninorch (1845). L. was Under-Secretary for Foreign Affairs (1852, 1861-66), M.P. for Southwark (1860-70), minister to Spain (Madrid, 1860-77), and employed at Carterial Carlos (1829-1906), a politician, was first re-turned to parliament as a member for stantinople (1877-80). He was Com-Carlisle in 1859. From 1836 to 1900 missioner of Public Works under herepresented Cockermouth, and from Gladstone (1868). His publications

'd here.

Layering

include: Nineveh and its Remains, 1848; Nineveh and Babylon . . . , 1853; Monuments of Nineveh, 1849-

٠. : . ancient sculptures and bas-reliefs, now in the British Museum. He was in the Crimea during the war, and on the committee appointed to inquire into the conduct of the expedition. See Autobiography and Letters, 1902; Life by Bruce and Otway, 1903; Lane-Poole, Life of Stratford Canning, ii.; Celebrilies of the Century, 1890.

Layering, a term used in horticul-ture, indicates a method of propagating plants by layers. A shoot of a plant, while still attached to its is bent down into the soil, where it strikes root and ultimately

becomes a separate plant.

Lay-reader, in the Anglican Church, a layman licensed by the bishop to read morning and evening prayer (except the absolution), to officiate at funerals, and to read the sermons of approved divines. In the time of St. Cyprian, Ls. were an inferior order of clergy. The reformed Prayer-Book of Edward VI. contained an office for the admission of readers, which became extinct in the 18th century.

Lazareff (or Lazaref), Port, afine har-bour of Broughton Bay, E. coast of Korea, at the mouth of the R. Dungan. There are deposits of gold near by.

Lazaretto: 1. A lazar-house hospital for lepers, dedicated to St. Lazarus. These houses existed throughout Europe in the middle ages, and were established not solely for lepers but for the sick poor. Since about the 14th century, leprosy has been steadily declining in Europe and is found only in limited districts, in Norway, Iceland, Russia, and a few countries. Modern leperhospitals exist at Bergen (Norway), Tracadie (New Brunswick), Robben Is. (Cape Town), and several are in India. 2. A place for the performance of quarantine, established for the reception of goods or passengers or crew of a ship suspected of certain infectious diseases, such as yellow feyer, plague, or cholera.

Lazistan, a coast dist. of Asia Minor, on the S.E. of the Black Sea, forming part of Trebizond. Part of it, with the port Batum, came under Russian con- not attack it. trol (1878), the rest is still Turkish. The inhabitants (Lazes) are mostly Mohammedans, and their language

resembles the Georgian.

Lazulite (a mineral), see Lapis

LAZULI.

Lazzaroni (It. beggars), a name cases. originally signified lepers.

Lé, or Leh, a walled tn. of Kashmir, India, cap. of Ladakh, in the Indus Valley. It has several Buddhist the rajah's palace, and temples, other buildings. Extensive transit trade is carried on with the Punjab and Tibet (E.) and Chinese Turkistan Shawi-Shawl-British

Pop. 4000.

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Lea, or Lee, a riv. of England rising in S. Bedfordshire. It flows S.E., past Luton into Hertfordshire, E. past Hertford and Ware, S. between Hertfordshire and Essex, bounds Herts and Middlesex on the E., finally join-ing the Thames at Blackwall, below the Isle of Dogs. It is navigable for

28 m., and noted for fish. Leach, William Elford (1790-1836), an English naturalist and physician. He became assistant librarian of the natural history department in the Museum (1813), assistant British curator (1821), soon after retiring through ill-health. He discovered the genus of long-tailed decapodous Crustacea which he called Atya. His works include: The Zoological Misworks include: The zootogicus and cellany..., 1814-17; Systematic Catalogue of the Specimens of Indigenous Mammalia and Birds in the British Muscum, 1816; A Symonsis of the Mollusca of Great British Crabs, 1815-16. See Wood's Naturalist, ii.; Thomas, Universal Dict. of Biog., iil. Lead, a city of Lawrence co., S. Dakota, U.S.A. Has one of the largest gold mines in the world, and

largest gold mines in the world, and carries on manuf. of gold-jewellery. Pop. (1910) 8392.

Lead (symbol Pb, atomic weight 207, specific gravity 11.4), a soft bluish-grey metal, which can easily be scratched by the nail and marks It is mallcable, tough, and paper. flexible, but not ductile nor tenacious. It melts at 325° C., and at temperatures just below this point it becomes very brittle. Dry air at ordinary temperatures has no effect on it, but when exposed to moist air it becomes covered with a white film of basic carbonate. On heating to redness in air it oxidises readily and forms litharge. It is dis-solved by nitric acid and slightly attacked by strong sulphuric acid, but dilute hydrochloric or sulphuric does

Commercial L. is one of the purest metals of commerce, impurities being usually the mcrest traces. Copper is sometimes present, which is objectionable when the L. is required to form white L. or red L. in certain cases. The most widely distributed given to the lowest class of the ore is termed Galena (PbS), and smelt-population in Naples. The name ing processes are all designed for the treatment of this compound.

silver, so that the separation of this element is nearly always involved in the process. When the crushed ore is delivered to the smelting house it will be found to contain nearly 80 per cent. of L., as the earthy material (gangue) is easily removed owing to

the great weight of the metal.

We shall consider three processes for the smelting of the L.: (1) The Flintshipe Air-Reduction process, (2) the Blast Furnace process, (3) the Scotch process. These smelting processes differ in the type of furnaces used. The Flintshire process has been used for a very long period in N. Wales for the reduction of the unusually pure L. ores found there, the gangue in this case being usually a carbonate of lime. The furnace is a large reverberatory one, having a hearth which slopes to a well, from which the molten L. is tapped. A lining of grey slag is used to prevent contact with the brickwork. The charge, consisting usually of about a ton of galena, is roasted at a dull red heat for two hours, during which period it is frequently turned. The fire is then made up and the I. begins to run down to the well, on the surface of which there will be a floating mass of clotted galena and gangue. To this lime is added, the mixture again roasted, and the cycle completed as above. This process is called the airreduction process, because no ex-ternal agent except air is employed. The galena is oxidised into the oxide and sulphate of L. with the evolution of sulphur dioxide, and these L. compounds further react with galena, forming pure L. and sulphur dioxide.

In Cornwall the L. ores were abundant, but the gangue was largely composed of silica, so that a modification of the Flintshire process was introduced. After the preliminary roasting the charge was melted rapidly so as to extract as much L. as possible. then to the fused mass scrap-iron as well as lime was added. This mixture melted out in three layers: (1) lead; (2) a regulus containing the iron and various other metals present in the original ores; (3) a slag containing chiefly silicate of iron which was thrown away.

In the N. of England a small blast furnace is used, simply consisting of a brick shaft with a sloping iron bed-plate. This shaft is lined with fire-brick for about a height of 4 ft. Through the back comes a single tuyère about a foot above the bed, and a charging space is left above the iron plate called the fore stone, L., when hot, flows easily under pres-

galena always carries more or less of which is filled with coarse cinders, and separated from the rest by a vertical partition, which does not quite reach the bottom. The bed plate is now covered with a sloping mass of coal ashes to about 1 in, below the tuyere, the fire is then made up with coke and peats, and then the blast is turned on. When the furnace is hot, slag and ore and the fused mass over from a previous charge (browse) are introduced. As the reduction goes on, the L. sinks through the ashes on the bed plates, and runs into the troughs and filters through the cinders into the smaller division, whence it is tapped into moulds. Charging is kept up for about seven hours, and then the supply is stopped, and the furnace is allowed to burn itself out. The interior is thoroughly cleaned out and fresh ashes and cinders are put in, the slag remaining from the previous charge being of course replaced in the furnace. L. so obtained is hard and somewhat impure.

The last process is the Scotch ore hearth: in this case there is an iron sump some 2 ft, square, and 6 in.deep, set in masonry, and surrounded on three sides by iron bars some 8 in. square. The bars are called the side stones and the back stones. Under the back stone is the single tuyère. The front of the hearth has a sloping plate in which is a gutter, down which the L. flows into a trough. The open back opposite to the back stone carries a girder which supports a small flue for carrying off the fumes. When working the method of pro-cedure is as follows: The sump is filled with L. and on to this ore and fuel is piled up to the level of the side stones. The workman then stabs a rod into the red-hot mass, and draws it out on to the work plate; some L. separates out and flows down the gutter into the L. pot. The residue is returned to the furnace. These operations take place about every five minutes.

L. produced by these processes is nearly always hard, and has to be softened. This is quite a simple process, as the impurities which render the L. so hard will all oxide off, if the L. be kept heated for several hours or days as the case may be. amount of L. can be treated at once the oxides rising to the top, and being

tion rollec.

is first cast into cakes about 5 ft. square. L. piping is common because which closes the front. The L. sure. Such pipes are usually forced trough is an iron pan, the larger part out by strong hydraulio pressure, the

Leaf 424

L. being squeezed ' and the die. Shot is molten L. into a

containing cinders: way through the periorations, and if allowed to fall through about 150 ft. the drops become spherical. Those which are not true are separated by rolling down an inclined plane having a gap in it. The true ones will gather enough impetus to jump it, but the oblate ones fall through and are remade. Litharge is made by oxidation of the L. after it has been desilverised in the cupel. Red L. is made by the oxidation of litharge. Orange L. is made by heating up white L. car-

bonate in place of litharge in a colouring oven. Lead, The, an instrument for discovering the depth of water at sea. It is a large piece of elongated lead. something the shape of an oldsomething the snape of an our-fashioned clock-weight, attached to a line, called the 'lead-line' generally about 20 fathoms long. It weighs from 7 to 11 lbs. There is a cavity at the lower end, filled with tallow to

Leadgate, an eccles, par, and mining tn. of Durham, England, 11 m. from Newcastle. Both coal and iron are found. Pop. (1911) 4990.

Leachills, a vil. of Lanarkshire, Scotland, 18 m. S. of Lanark. It is about 1320 ft. high, and its lead mines have been worked since the early 17th century. Some silver is also mined. Pop. (1911) 835.

Leading Question, in the law of evidence (q.v.), a L. Q. is one which by its form suggests to the witness the answer required by counsel for the purposes of his case. For example, if in an action of damages for personal interior alloged

... the community to refute evidence already given an opposing witness. L. Qs. may, wever, be put without restriction cross-examination.

Lead Plaster (Emplastrum plumbi), made of lead acctate, soap, and water, and is used as an external application to raw and irritated surfaces. It has practically no effect on the unbroken skin, but when applied to sores, has the effect of coagulating the albumen and so contracting the small bloodvessels. Emplastrum plumbi iodidi is made from lead iodide, and has much

the same curative effect. Lead Poisoning, or Plumbism, a form of poisoning due to the introduction of lead into the system. It is a 'disease of occupations' and specially affects workers in potteries where lead glaze is used, as well as painters. plumbers, glaziers, printers, and others. In such cases the disease is the result of minute doses of lead being absorbed over a long period of time. The symptoms vary with the extent of the poisoning, and also with

from 7 to 11 lbs. There is a carry, at the lower end, filled with tallow to ascertain upon what sort of ground the soundings are struck. The weights for different depths of sea-sounding naturally vary. When the depth is great, the deep-sea lead, weigh, from 25 to 30 lbs. is used, the being marked by knots every fathoms. One of the regulations prescribed by the navy is that ships shall constantly keep the hand-lead going, when pilot waters.

Sounding an ford's Sailor Patterson's ' the constitution of the many is painter's colic, which is attended with frequent intestinal pains and obstinate constipation. The poison proceeds to produce muscular tremors, in which the hands become useless and the joints deformed. A test for lead in the system is provided by painting a small area of the skin with a 6 per cent. solution of lead sulphite; if lead be present, the area will darken in a few days. The treatment in acute cases consists of the administration of potassium iodide. The absorption of lead can, however, be avoided altogether by strict attention to cleanliness, particularly with respect to the hands and nails.

Leadville, cap. of Lake co., Colorado, U.S.A., founded in 1859 as 'California Gulch,' 76 m. S.W. of Denver. Gold, silver, and lead abound, and there are large smelting furnaces.

(1910) 7508.

Leaf, in botany, is a term applied to various lateral outgrowths of the stem, e.g. bracts, sepals, and petals, all of which are considered under their in an action of damages for personal individual headings, but in its best-injuries alleged individual headings, but in its best-known the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage L. consultation of the plant which constitute its foliage. The foliage has a foliage

The shape of the lamina varies very aimed against the emperor. greatly, but the different forms are divided sharply into two as compound or simple, the former indicating that the lamina is split up into a number of distinct parts called leaf-lets, while the latter indicates that however much the blade may be in-dented it is not split up into leaflets. The venation of Ls. is necessarily related to their form: in the typical L. of a Monocotyledon, e.g. iris, the veins run parallel to one another, and the L. is long and undivided, while in a Dicotyledon the venation is always reticulate and the L. may be greatly divided, e.g. horse-chestaut. The same plant may bear several types of Ls., and one which grows with part of its foliage in a submerged condition will be noticed to have its aquatic Ls. very finely divided to withstand the force of the water. The functions performed by Ls. are of the greatest importance to the life of the parent plant. Most of the carbon dioxide absorbed from the atmosphere is taken in by the Ls.; respiration or the exchange of carbon dioxide for oxygen is also effected by them, as well as transpiration or the giving off of large quantities of surplus water.

League (Lat. leuca, a Gallic mile), a measure of longth of great antiquity, estimated by the Romans at 1500 paces, or 1.376 English miles. It was introduced into England by the Normans, and was then equal to 2 old mans, and was then equal to 2 old English miles, or about 3 modern miles. It is now a nautical measure, the 20th part of a degree, i.e. 3 geographical miles, or 3.456 statute miles. The French and other nations

use the same nautical measure. Leagues, Historical. League is a term which signifies a political alli-ance or coalition. The name has been given to numerous confederations, such as the Ætolian and Achæan leagues of ancient Greece; the various holy leagues, of which the most fam-ous are those formed by Pope Julius II. against Venice in 1508 (often known as the League of Cambrai), and known as the League of Cambrai), and factured. Pop. (1911) 26,717. See against France in 1511; commercial Garrod, Medicinal Springs of Leamleagues, like that of the Hause towns inglon, 1895. (see Hanseatic League); the Solemn League as 'bissex-(see Hanseatic League); the Solemn League and Covenant between Engleague and Covenant between England and Scotland in 1643, for the establishment of the Presbyterian Church; the Smalkaldic League in France; and the Protestant Union and Catholic League in Germany, which heralded the Thirty Years' War. After the Peace of Westphalia, while France and Spain were still at while France and Spain were still at war, Mazarin helped to form the too short in each ordinary year. A League of the Rhine, which included leap year is divisible by four without powerful German princes, and was a remainder, excepting in the case of

Many leagues were formed during the latter part of Louis XIV.'s reign to check the growing power of France: the most important being the League of Augsberg (1686), which was formed after Louis had seized Strassburg and German lands in the period of peace after the Treaty of Nimeguen, and the Grand Alliance (1701-2) headed by William III. of England. The most famous league of the 18th century was that of France and Spain which were allied by a series of family compacts. The name has been family compacts. The name has been adopted by various political associations, such as the Anti-Corn Law League, the Irish Land League, the Primrose League, the United Irish League, etc. See Dyer and Hassall's History of Modern Europe (3rd ed. 6 vols.), 1901; Stubbis's Lectures on European History, 1904; and Cambridge Modern History, 1903-10.
Leakage and Breakage, a term in-

Leakage and Breakage, a term inserted in bills of lading or charterparties, to duly protect the ship-owner, viz. 'leakage and breakage excepted,' or 'not accountable for leakage and breakage.

Leake, William Martin (1777-1860), British officer and archeologist, born in I the rank

army, he Morea, and other parts of Greece, surveying the coasts and fortresses and making collections which are now in the British Museum. He retired in 1823 and published soveral valuable works, among them being: Researches in Greece: Topography of Athens: Travels in the Morea: Travel in Northern Greece: and Numismatica Hellenica. See Memoir by Marsden, 1864.

Leamington Priors, or Royal Leamington Spa, a municipal bor, and health resort of Warwickshire, England, on R. Leam, 21 m. from Warwick. The mineral springs (saline, sulphurous, and chalybeate), discovered 1874, are much frequented. Cooking-ranges are extensively manu-

tile,' the name given in England to every year which has 366 days. Julius Cresar. The solar year was settled at 365‡ days, and under the new arrangement the February of every fourth year was to have 29 days instead of 28, the calendar thus taking a leap of one day every fourth year to balance its being six hours

concluding years of centuries, when of time varying from one to three every fourth year only is a leap year. See Calendar.

Lear, Edward (1812-88), an English writer and artist, exhibited at Royal Academy (1850-73). He early made ornithological drawings in the Zoological Gardens, and assisted Gould as draftsman in his Birds (1832-36). L. produced his delightful Book of Nonsense (1846) for the grand-children of his patron, the Earl of Derby, and drew the plates to The Knowsley Menagerie for him. Other works were Sketches of Rome and its Environs, 1842; Illustrated Excursions in Italy, 1846; Journal in Greece and Albania, 1851 (praised by Tennyson in his 'Lines to E. L...'); In Corsica, 1870; More Nonsense Corsica, 1870; More Nonsense Rhymes, 1871; Laughable Lyrics, 1876. See Lushington's 'Memoir' prefixed . 1889; Letters, ed. by to Poems . . Stachey, 1907.

Leather (a word common to all Teutonic languages; Ger. heder, Teutonic languages; Ger. heater, Dutch leer or leder, Swedish läder, etc.; Cf. Welsh lladen), the name given to the imputrescible substance which is prepared from the skins of various animals by means of different processes. The skins of Mammalia consist broadly of two layers—the upper, containing coloning matter and the containing colouring matter and the roots of the hair, being cellular in structure, the thicker under layer being of fibrous structure. The upper layer is known as the epidermis, the under as the corium. The former is valueless from the tanner's point of view, and as it is decomposed much more easily than the latter by the action of alkalies, it is removed; the latter is soluble in water after protracted boiling, and yields a solution which gelatinises upon cooling. Moist skin putrefies on exposure to the air, dried skin becomes hard and and brittle. Before L. can be produced the skin must be cleansed thoroughly, and all the hair, together with the epidermis, removed. The skins used by the tanner are principally those of cattle, but those of horses, asses, pigs, goats, kids, and deer are used. The quality of the hide in different animals, and also :

same animal, according to its After the skins have been washed, they are steeped in water for some days until they are soft enough for the flesh and muscle still adhering to be scraped off by means of a blunt knife: they are also hammered by hand or machinery. The hides are next placed in pits, which are filled with a milk of caustic lime. The cells of the epiderswollen and fibrils. This

weeks, according to the nature of the skin, and the longer it is carried on the softer is the L. Ox and cow hides for 'sole' L. are sometimes 'sweated' instead of being exposed to the action of lime; they are hung in a warm moist atmosphere until putrefaction is begun, when the hair is removed. The fibres are not swollen by this method, and the resultant L. is of a very firm nature. Sheep skins are often 'sweated,' so that the wool may be removed without injury, and afterwards 'limed.' As substitute or assistants to lime alkaline sulphides are sometimes used. After the skins have been limed they are again subjected to the action of the dressing-knife; the loosened hair, etc., is re-moved with a blunt knife, and the flesh, tissues, etc., still adhering are cut off with a sharper instrument. All hides go through the above process, with modifications of detail, but those required for softer Ls. are now treated in a different manner from the thick sole Ls. The latter are merely washed with water or a very dilute acid liquid in order to remove as much of the lime as possible. hides for softer Ls., however, require to be brought into a softer condition. and all trace of lime removed.; menting infusions of excreme at are menting infusions of excrement are often used for this purpose; that of fowls for heavier, of dogs for finer Ls., The substance 'erodin,' which is composed of gelatinous matter chemically treated, is, when inoculated with a culture of suitable bactering, used instead of the above infusions, and has the advantage of not injulying the strips. The prepared hides miles now skins. The prepared hides muay now be tanned by the action of dreifferent materials. There are three marin processes named according to the miniaterial used. 'Tanning' is the name, given to the process when tannin as the substance employed; 'tawing' is the name when metallic salts are used, 'chamoising,' or 'shamoying,' when oils and fats are the agents.

Tanning.—Tannin is obtained from

materials, but other products are largely used, including valonia (the acorn cup of the Levantine Quercus agilops), oak wood, and chestnut extracts; sumach, cutch, gambier, and myrobalans, etc. Thick and heavy myrobalans, etc. Thick and heavy hides are tanned 'in the bark,' thinner hides 'in liquor.' In the former process the bottom of a wood-lined pit mis are thus dissolved and the hair is covered with spent bark, and suc-losened, ar ' ' layers of hides and bark are

a top layer of spent bark , and the pit filled with water.

This process is repeated in different; tion in dressing L. for shoes is soaktanks, and at the end the hides have gained about 10 per cent. in weight. In the 'liquor' process the hides are placed in successive solutions tannin, each of which is stronger than the last: thinner hides require six to eight weeks, thicker hides twelve to fourteen weeks. The time taken by bark 'processes was formerly as long as two years, but from three to six months is now a more usual time. The heavier Ls. are partially dried when tanned, then stretched, 'struck,' and rolled, generally by machinery; it is then completely dried at a

moderate temperature.

Tawing.—When the skins have been prepared as described, they are separately soaked in a tepid bath containing alum and common salt dissolved in water; they are then placed in heaps for a few days, when they are wrung out and dried by exposure to the air. The mutual action of the salt and alum produces aluminium chloride, which the skins absorb. When the skins are thus *tawed* and dried, they are softened by being damped and stretched between a curved iron and a movable steel plate, after which they are finally dried. A strong L. may be produced in a comparatively short time by steeping the hides in a very strong solution of alum and salt, drying them, and then rub-bing them with tallow before a char-The more delicate kinds of L. are tawed by immersion in a bath containing, besides salt and alum, yolk of eggs, and wheaten flour. They are then stretched, dried, softened, and finally polished by rubbing with a glass disc.

Chamoising .- 'Wash leather.' or chamois L., is prepared from the skins of deer, sheep, calves, etc., by tawing them with oil. The skins are prepared in the usual way and are then re-peatedly rubbed with animal oil; the oil employed is usually a fish oil, to which a little carbolic acid is some-times added. The oil is sprinkled on the skins and rubbed in by hand, after which they are placed in the fulling machine and exposed for some time to the action of the beaters. This process is repeated until there is no longer any fleshy odour from the skin. A process of gentle fermentation is then originated in the skins by exposure to a warm atmosphere; the pores are thus opened and the oil thoroughly penetrates the skin. Washing with a dilute warm caustic ley removes any excess of oil, and the skins are then dried and dressed.

Currying is the finishing process applied to L. when it comes from the tanner, especially to L. for shoes, saddlery, and harness. The first opera-

8 in. broad. The knife used for this purpose is of a rectangular form with a handle at each end and a double edge. After being shaved the L. is scoured,' that is, rubbed on the grain or hair side with a piece of pumice or similar stone. These stones expel the 'bloom,' a white substance produced by the oak-bark in tanning, from the L. A greasy substance called 'stuff-ing,' or 'dubbing,' is then applied either by hand, or in a rotating drum, which is heated to melt the grease, after which the L. is dried. It is then softened by the application of a 'graining board,' an instrument with teeth on the under side, to the flesh side ('graining'), and to the grain side ('bruising'). 'Whitening,' or 'par-('bruising'). 'Whitemus, or ing,' is the next operation, consisting of the removal of the grease by a start which the of the removal of the grease by a sharp-edged knife, after which the graining board is again applied. 'Waxing,' or 'colouring,' is effected by rubbing with a brush dipped in a composition of oil and lamp-black on the flesh side; the L. is then sized, the surface smoothed by pressure, and a second sizing given. Waxing and a second sizing given. Waxing on the grain side differs but little from waxing on the flesh side. For patent and enamelled Ls. many successive coats of a varnish composed of Prussian blue boiled with linseed oil are applied. 'Morocco' L. is made from goat skins, which are generally tanned by the action of sumach, glazed by a solution of blood and milk, and polished. 'Kid' L. rather implies that a certain mode of dressing has been employed than that the skin used is from the kid, as other skins are used. Chrome Ls. are tanned by the action of salts of chromium instead of those of alumina. See Procter, Principles of Leather Manufacture, 1903; Davis, Manu-facture of Leather, 1897; A. M. Villon, Leather Industry, 1901; A. Watt, Leather Manufacture, 1906, etc. Leather-cloth, American, a textile material, so called because it has a flexible surface somewhat resembling leather. This surface is variously obtained. Sometimes the backing fabric —usually unbleached calico, or linen if greater durability is required—is if greater durability is required—is treated with an insoluble coating of gelatine mixed with glycerine, and sometimes a mixture of boiled oil, driers, and dark dye-stuffs is rolled on to the cloth. It is used for furnitume and contrigue unbackers. for ture and carriage upholstery, for writing tables, and for covers of various description.

Leatherhead

ing it until thoroughly wet; the flat

side of the L. is then shaved to the required form on a beam about 7 or

Leatherhead, a par, and tn. of Surrey, England, 3 m. from Epsom,

on the Mole. There are brick works, tanneries, and breweries. Pop. (1911) 5491.

Leathes

5491. Leathes, Stanley (1830-1900), an English divine and Orientalist, born at Ellesborough, Bucks. He took English divine and Orientalist, born at Ellesborough, Bucks. He took holy orders (1856), became professor of Hebrew at King's College, London (1863), Boyle lecturer (1868-70), Hulsean lecturer at Cambridge (1873), Bampton lecturer at Cambridge (1874), and Warburtonian lecturer at Lincoln's Inn (1876-80). In 1876 L. was elected prebendary of St. Paul's, rector of Cliffe-at-Hoo (1880-89), and of Much Hadham, Herts. (1889-1900). He published many sermons and Studies in Genesis. 1880: sermons and Studies in Genesis, 1880; Christ and the Bible, 1885, etc.

Leave, Military, see Officer. Leaven (through Fr. levain; from Lat. levamen, solace, levare, to lift up), substance which produces fermentation; also an underlying ele-ment or influence which produces a subtle change over anything. To the Hebrew the word suggested corruption, hence leavened bread was not permitted in sacrifices. At the Feast of the Passover or of Massôth unleavened bread was eaten. In the N.T. the Kingdom of Heaven is compared to L. (Matt. xiii. 33), signifying a good influence. The idea of corrup-tion is suggested in the reference to the L. of the Pharisees in Matt. xvi. 6.

Leavenworth, the cap. of Leavenworth co., E. Kansas, U.S.A., on the R. Missouri, 25 m. N.W. of Kansas city. Fort Leavenworth to the N. has a military prison and strong garrison. a military prison and scrons games. Coolis nined, and machinery, engines, bricks, furniture, flour, woollens, and papulactured. Pop.

(1910) 19,363.

Lebanon: 1. The cap. of Lebanon in S.E. Pennsylvania, U.S.A., 25 m. from Harrisburg; produces iron, copper, marble, coal. Manufs. include machinery, stoves, chains. Pop. (1910) 19,240. 2. Cap. of Grafton co., New Hampshire, 50 m. N.W. of Concord. Machinery, woollens, and farm implements are manufactured. Pop. (1910) 5718. 3. Cap. of Boone co., Indiana, 25 m. N.W. of Indianapolis. Manufs. washing machines, flour, etc. Pop. (1910) 5474.

Lebanon, Mount (Libanus, White Mountain), a mountain chain of Syria and Palestine, parallel with the Mediterranean coast with spurs projecting to the sea, the Jebel-Libuan or Jebel-el-Gharbi of the Libuan or Jebel-el-Gharbi of the Latabas, It stretches from the Nahr-el-Kebir, near Tripoli, and Homs to the Litabas (are interfered to the Libas). the Litany (ancient Leontes), near Tyre, and the range is continued by the hills of Palestine, the biblical mountains of Naphtali, Ephraim,

(Jebel-esh-Sharki). Libanus range with El-Buka'a (ancient Cæle-Syria), a narrow, fertile valley between. The a narrow, ferthe valley between. The average height of Lebanon is 7000 ft., its chief peaks, Dahr-el-Kodib and Jebel-Makmal, being about 10,000 ft. The formation is limestone, sandstone, and basalt. Only a few groves of the once noted cedars now remain. Sheep and goats are reared, and much silk is produced from the silk-worms of the mulberry plantations. Iron, coal, asphalt, and amber are found. The inhabitants are mostly Christians (Maronites and Greek Catholics), but a few Druses remain in the S. Since 1861, a Christian governor, under protection of the European powers, has been appointed. His scat is at Beited-din in summer, at Baabda in winter. Pop. 260,000 to 400,000. See Fraas, Drei Monate im Lebanon, 1876; Porter, Handbook for Travellers in

Syria and Palestine, 1875.

Lebedin, a tn. of Kharkov gov., S. Russia, 90 m. W.N.W. of Kharkov, trading in tallow, sugar, and grain. It figured in Peter the Great's

It figured in Peter the Great's campaign against Mazeppa and Charles XII. (1709). Pop. 14,200. Lebedyan, a tn. of Tambov gov., Central Russia, 110 m. W. by N. of Tambov. There is trade in cereals, tn., leather, live stock. Pop. 14,000. Lebœuf, Edmond (1809-88), a marshal of France, born in Paris. He entered the army in 1832, and after services in Algeria was made colonel. He directed the French siege opera-He directed the French siege opera-tions around Sebastopol in the Crimean War and was made brigadiergeneral. He rose to be commander-in-chief of the artillery and served with distinction at the battle of Solferino. In 1869 he became Minister of War and the following year marshal. Before the Franco-German War he believed France to be in perfect readiness, so that he was largely blamed for the disasters of his country. After resigning he fought bravely at Noisseville and Gravelotte, and was taken prisoner at Metz.

Le Bossu, René (1631-80), a French writer, born in Paris. He joined the canons-regular of Saint Geneviève in 1649, and taught the humanities in various schools. His *Treatise on Epic Poetry* (1675) won for him a European reputation. It was translated into English by 'W. J.' in 1695, and there was a later version in 1719. See Memoir by Le Courayer, prefixed to the 6th ed. of the Poème Epique.

Lebrija (ancient Nebrissa), a tn. of Seville prov., Spain, 16 m. from Jerez. There is a rulned castle. It trades in cattle, grain, wine, and oll. Pop. 11,000.

Le Brun, Charles (1619 - 90), and Judea. To the E. is the Anti- French historical painter, pupil of Vouet. He designed many of the decorations at Versailles (1679). In 1648 he helped found the Academy, established the French school at Rome, and became director of the Gobelins manufactory (1660). His works include: 'Massagre of the Innocestation of the Innocessation of the Innocessatio cents, five pictures illustrating the history of Alexander (1661-68, in the Louvre), 'The Family of Darius,' 'The Repentant Magdalen.' Sec Jouin Lives by Genevay (1885), (1890); Blanc, Hist. des Peintres, 1849-75; Bayle, Hist. and Crit. Dict., 1696.

Le Brun, Marie Louise Elisabeth (néc Vigéo (1755-1812), a French por-trait painter. She painted her first portrait of Marie Antoinette (1779), and was admitted to the Academy (1783) with 'Peace Bringing back Plenty' She travelled much in She travelled much Europe. Her portraits menuae: Lady Hamilton, Mme. de Staël, herself and her daughter, J. Vernet, Lord Byron, the Prince of Wales, Marie Antoinette and her three children. She published her Souvenirs about 1835. See For. Quart. Rev., Oct. 1837.
Labrum Ponce Denis Ecouchard Europe. Her portraits include:

Lebrun, Ponce Denis Ecouchard (1729-1807), a French poet, born in Paris, and educated at the Collège Mazarin. He became secretary to the Prince de Conti and frequented the time. Ponce Denis Ecouchard the gay, literary society of the time, writing letters and composing witty epigrams and beautiful odes, which won for him the name of the French

Pindar.

Le Caron, Henri (1841-94), the adopted name of Thomas Miller Beach, British secret service agent, born at Colchester. He served with born at Colenester. He served what the Northern Army in the American Civil War (1861-64), and afterwards, having given information to the British government concerning the Fonian plot against Canada, he we employed as a military spy. T. Parnell Commission of 1889, when was brought forward as a witness, put an end to his exciting career. See his Twenty-five Years in the Secret Service, 1892.

Lecte (ancient Lupiæ), a tn. and archiepiscopal see of Apulia, cap. of the prov. of Lecce, Southern Italy, 24 m. S.E. by rail of Brindisi. The church of SS. Nicola e Cataldo was built by Tancred in the 12th century. There is also the cathedral of S. Oronza and the Depotetry. Oronzo, and the Prefettura, with its valuable collection of Greek pottery. L. has extensive trade in oil, wine, tobacco, woollens, etc. Pop. 33,610. The has an area of province

2623 sq. m. and a pop. of 769,043. Lecco, a tn. in the prov. of Como, Italy, 15 m. E. by N. of Como, standing on an arm of the lake. The town manuts, iron and silk goods. 10.500.

Lech, one of the tribs. of the R. Danube, about 170 m. long. It rises in Vorariberg and flows through Bavaria in a northerly direction, joining the Danube near Donauwörth

Lechler, Gotthard Victor (1811-88), a German Lutheran theologian, born at Klöster-Reichenbach in Würtemberg. He is the historian of early Christianity and of the pre-Reformation period. His chief work is Johann von Wielif und die Vorgeschichte der Reformation. His other

verfassung, etc. Lecky, William Edward Hartpole (1838-1903), an English historian and He

eaders nonye Hisof the 1865: Morals 1869:

and after about ten years' study and investigation, The History of England in the Eighteenth Century, 1878-90. The first three were translated into German, the History of Morals being used as a text-book in German universities. versities. He was M.P. for Dublin University in 1895 and 1900. Later works include: Poems; The Political Value of History: Democracy and Liberty: and The French Revolution.

Le Clero, Jean (1657-1736), a Swiss theologian, born at Geneva, and after completing his studies became a pro-fessor at the Remonstrant seminary at Amsterdam, 1684. Among his numerous works are: Bibliothèque Universelle et Historique, 1686-93; Chite, 1703-13; Biblio-l Moderne, 1714-26;

30.

Lecluse, see CLUSIA. Lecocq, Alexandre Charles (b. 1832), a French musical composer, born at Paris. His first operetta appeared in 1857, Le Docteur Miracle, followed by many others, notably Fleur de Thé. Les Cent Vierges, and best known of all, La Fille de Mme. Angot, produced in Paris and London (1873), which was never equalled in his subsequent pieces, including La Petite Mademoi-selle, Le Jour et le Nuit, Le Cygne, and

Yella (Brussels), 1903. Leconte de Lisle, Charles Marie (1818-94), a French poet, born in the island of Réunion. He settled in Paris in 1846. His first work, La Vénus de Milo (1848), gained him many friends. tand-especially amongst the devotees of town classical literature, and he pro-Pop. duced his Polmes Antiques, which contain some of his best work, in

852. These were followed by Poèmes 1 et Poésics, 1854; Le Chemin de la Croix, 1859; Poèmes Barbares, 1862; Les Erinnyes, a tragedy after the Greek model, 1872; Poèmes Tragiques, 1884; and L'Apollonide, 1888. Besides this, he translated Theocritus, Anacreon the Lind and Odward. Anacreon, the *Iliad* and *Odyssey*, Hesiod, Æschylus, Horace, Sopho-cles, and Euripides. *Derniers Poèmes* appeared posthumously, 1899. His poems had a great influence on the young poets of his time, and are marked by classic regularity and faultlessness of form. He was made assistant librarian at the Luxembourg in 1873, and succeeded to Victor Hugo's chair at the Academy

Lecouvreur

in 1886. Lecouvreur, Adrienne (1692-1730), an actress, born near Châlons. After making her début in 1717, she was received into the Comédie Française, where she attained an extraordinary popularity. She was extremely fascinating, but her success was largely due to the naturalness of her de-livery and her simple pathos. Her livery and her simple pathos. death was supposed to have been due to poison administered by a rival, the Duchess Bouillon. Scribe and Legouve's play, Adrienne Lecouvreur (1849), gives an account of her life.

Le Creusot, see CREUSOT.

Lectern (Fr. lutrin, Ital. leggio, Ger. lesepull), a reading-desk, in the Anglican Church, practically confined to the reading of lessons. It came into use in the 15th century, and was made either of wood or metal, the com-monest type being in the form of an eagle with outspread wings, on which the book rested, raised on a moulded stem and carrying three projecting ledges with lions on them.

Lectionary, a book containing portions of scripture to be read during the course of the year in the public service of the church. The custom of reading the books of Moses in the synagogues on the Sabbath day was an ancient one, the addition of lec-tions (readings) being of later date. In the Anglican Church the form of L. was fixed in 1661, and revised in 1867. In 1879 a new table of lessons was drawn up and became obligatory.

Lectures (Lat. lectura, from legere, to read; compare Fr. lecture), discourses or addresses of a formal nature, given from an educational point of view, to distribute information on a variety of subjects. Lectureships have been endowed at most universities, with a view to spreading the particular opinions of the founder, and nowadays they are attached to practically every branch of learning, though formerly they were of a theo-

livered at Oxford, the Hulsean at Cambridge, the Boyle at London, the Hibbert (in comparative religion) at Oxford and London, the Donnellian at Dublin, and the Gifford and Burnett L. in connection with the Scottish universities. Of more recent date are the 'University Extension' L., in-augurated in 1885 at Oxford, mainly owing to Max Müller. Cambridge also has a University Extension Excheme, with centres at Derby, Exeter, Hull, Newcastle, and other important towns, and the London University has a similar scheme. See The New Review, vol. iii., for article on this subject by Prof. Max Müller.
Leda, in Greek myth, a daughter of

Thestius and Eurythemis, and wife of Tyndareus, King of Sparta. visited L. in the form of a swan, and by him she became the mother of Castor and Pollux. The story is re-counted by Homer, Hesiod, Ovid, Euripides, and other of the ancient

writers.

Ledbury, a tn. in Herefordshire. England, at the S. extremity of the Malvern Hills. Fine cider orchards and hop grounds are in its immediate neighbourhood. Pop. (1911)

3358.

Lede, a tn. in the prov. of E. Flanders, Belgium, 4 m. N.W. of Alost, with manufs. of lace and woollens. Pop. 5600.

.. C rdinal Count ecclesiastic. He was educated at Warsaw, finishing at Rome, where he was ordained in 1845. In 1861 he was nuncio to Pope Pius IX., in 1865 became Archbishop of Gnesen-Posen, and in 1876 was made a cardinal. He championed the cause of his religion against the government, and suffered imprison-ment in 1873 during the Prussian and German Kulturkampf, on refusing to lay aside his office. Being released in 1876, he went to Cracow, but on being expelled from Austria went to Rome. finally resigning his archbishopric in 1885. In 1892 he was made prefect of the Propaganda.

Ledru-Rollin, Alexandre Auguste (1807-74), a French politician, born at Fontenay. He was admitted to the bar in 1830, and became conspicuous as a defender of republicans, and afterwards as a democratic agitator. In 1846 he published Appel aux Travailleurs, in which he advocated 'universal suffrago,' and on the out-break of the revolution in 1848 was a member of the Provisional government, aiming at the presidency against Louis Napoleon later in the though formerly they were of a theological or religious kind only. Of the London, where he joined 'Le Comité latter variety are the Bampton, de de la République Universelle,' returning to France after an exile of years. He wrote De la Décadence de l'Angleterre, besides many contributions to French jurisprudence. His Discours Politiques et Ecrits Divers appeared in 1879.

Leduo, sec VIOLLET-LE-DUC, EUGÈNE

EMMANUEL.

Ledyard, John (1751-88), an American traveller, born at Groton, Con-necticut. In 1776 he accompanied Captain Cook on his last voyage. On his return published a journal of the voyage with an account of Captain Cook's death. In 1786 set out on an expedition to the Arctic regions, arriving at Irkutsk after a journey of great hardships, where he arrested as a spy and forbidden to Russia. Returned re-enter to London and almost immediately started on another expedition to the interior of Africa, but fell ill at Cairo where he died. See ' Life ' by Sparks in his American Biography, xxiv.

Lee, a suburb of London in the Greenwich div. It contains the Mer-chant Taylors' almshouses.

Lee, a riv., co. Cork, Ireland, which flowsinto Cork Harbour. Length 45 m. Lee, a term which implies shelter or protection. It is chiefly used in nautical expressions, e.g. leeshore,

leeway.

Lee. Fitzhugh (1835 - 1905), an American general, born at Clermont, Virginia. He served throughout the Virginian campaigns of 1862 and 1863, becoming major-general the same year, and led the last charge of same year, and led the last enarge of the Confederates at Farmville in 1865. He was governor of Virginia, 1886-90; consul-general at Hayana, 1896; and military governor of Hayana and Pinar del Rio, 1899. He wrote: Robert E. Lee, 1894; and Cuba's Struggle Against Spain, 1899. Lee, Frederick Richard (1799-1879), a landscape resirter born at Barna and Cuba's

a landscape painter, born at Barn-staple. He became a student of the Royal Academy in 1818, and first exhibited in 1824. He was elected an academician in 1838. His works were chiefly of English scenery, the cattle in many of them being painted by Sidney Cooper. Some of his pictures are: 'The Cover Side' (dog, etc., by Landseer), 'Showery Weather,'

Lee, Nathaniel (c. 1653 - 92). English writer of drama. He produced his first play, Nero, Emperor of Rome, in 1675. Sophronisba and Gloriana were published in 1676, but he made his reputation by The Rival Queens, a blank verse tragedy in 1677. Many others followed, his last being Constantine the Great, 1684. L. also collaborated with Dryden in Œdipus, 1679; and The Duke of Guise, 1682.
Lee, Robert, D.D. (1804-68), a professor at Edinburgh, born at Tweedmouth, Northumberland. He was educated at St. Andrews University, and was minister of the old Greyfriars Church, Edinburgh (1843-68). He was made D.D. of St. Andrews in

1844. He tried to extend freedom of

worship and thought within the

Church of Scotland, and in order to

improve the form of public worship.

introduced stained-glass windows in f the Church in and Doctrine.

ny other theological works, and books of prayers.
Lee, Robert Edward (1807-70), a
famous American general, born at Stratford, Virginia. He took part in the Mexican War, distinguishing himself at the siege of Vera Cruz and at the storming of Chapultepec, and in 1852 was appointed superintendent of West Point, where he carried out or west Point, where he carried out great improvements at the Military Academy. From 1855-59 he served on the Texan border, and in 1859, the time of the John Brown raid on Harper's Ferry, commanded the U.S. troops. In 1861 he was made colonel of the 1st U.S. Calvalry, but resigned his commission on the resigned his commission on secession of Virginia the same year. and was immediately made comthe Virginian mander-in-chief of manner-in-ciner of the virginian forces. From this time L. is an integral part of the Civil War, he superintended the defences of Richmond (1861) and of the Atlanticoast (1862), and after General Johnston was disabled in 1863, was put in command of the army round Richmond, where he distinguished himself in the 'Seven Days' Battle,' defeating McClellan's Peninsular campaign. He also opposed General Pope's are: 'The Cover Side' (dog, etc., by Landseer), 'Showery Weather,' Landseer), 'Showery Weather,' Brening in the Meadows,' A River Scene,' (all of which are in the Appointment of General Grant, but was forced to Scene, and and Pennsylvania, but was forced to Scene,

Lee, Samuel (1783-1852), a celebrated linguist, a native of Shropshire. In his early years he taught himself many Eastern languages, and in 1813 went to Queens' College, Cambridge, becoming professor of Arabic (1819-31), and regius pro-fessor of Hebrew (1831-48). His chief works were his editions of the N.T. in Syriac (1816), and of the O.T. (1823), and a translation of the Book of Job from the original Hebrew (1837).

Lee, Sir Sidney (b. 1859), the editor of the Dictionary of National Biography since 1891, born in London. He was educated at the City of London School and Balliol College, Oxford, and became assistant editor of the Dictionary of National Biography in 1883, being joint editor with Sir Leslie Stephen (1890-91). contributed numerous articles, and wrote the Memoir of Edward VII. (1912). Other works of his are: Stratford-on-Avon from the Earliest Times to the Death of Shakespeare, 1885 (new ed. 1906): A Life of William Shakesed. 1906; A Lye of Wittam Stakes-peare, 1898 (illus. ed., 1899; popular ed., 1900, 1907); A Life of Queen Victoria, 1902 (new ed., 1904); Eliza-bethan Somnets, 1904; Great English-men of the 16th Century, 1904; Shakespeare's and the Modern Stage, 1906; The French Renaissance in England, 1910; Principles of Biography (Leslie Stephen's lecture at Cambridge), 1911.

cated at Cambridge. He was in the ministry at Calverton, subsequently removing to London. His invention was discouraged both by Elizabeth and by James I., so he established himself at Rouen, under the protec-tion of Henry IV. of France. After L.'s death his workmen laid the foundation of the manufacture in this

Leech, John (1817-64), a humorous artist, was educated at Charterhouse, In 1835 he began to London. exercise his gift of caricature, and in sketches his part of the techniqs and Sketches by A. Pen. In 1837 he illustrated Theodore Hook's Jack Brag, and three years later with Leigh produced a Comic Latin Grammar, and a Comic English Grammar. In 1841 a Comic English Grammar. In 1841 Punch was founded and L. became

University), at Lexington, Virginia, ing Dickens's Christmas Stories; a after the close of the war, and held this post till his death.

Lee, Samuel (1783-1852), a celescarcely second to that great master, except in the range of his subjects. The standard biography is by W. P. Frith (1891).

Leechee, sec LITCHI. Leeches. Leech is the common name of any species of the Hirudinea, a class of elongated, worm-like animals belonging to the group Annelida. They can be distinguished by their sucking-discs which are situated at each end of the body if there are two, and at the posterior extremity, if only one is present. They occur in all

parts of the world, and generally live

in water, frequenting streams, ponds, marshes, and the sea, but land-leeches are also found as in Coulon

aquatic Horse le

er ponds and other L. has lunted form.

The medicinal L. is known by its minutely-ringed body, and by the presence of an anterior and posterior sucker. Its mouth in the anterior sucker contains three teeth which are minutely serrated so that each tooth looks like a saw. It is these teeth which make the L. so useful in blood-letting, for with these it makes a wound in the skin, having first fixed itself by the anierior sucker, and sucks the blood into its own body. L. are usually of a dark olive colour, with patches or spots on a paler ground, but bright green specimens also occur.

Leeds, a city, parl, and co. bor. in the W. Riding of Yorkshire, on the R. Aire, 25 m. W.S.W. of York, and an important railway centre. It is the seat of the woollen industry, and has been noted for this manufacture for centuries. It has communication with Liverpool by the Leeds and Liverpool Canal, and with Goole and the Humber by the Aire and Calder Navigation. Besides this, the town is the centre of an important coal and iron district. There are large flaxmills, canvas and rope manufs. of thread, linen, glass, and earthenware, as well as of boots and shoes, the latter being carried on extensively. The iron trade, too, is a great source of wealth, and includes the casting of metal, and the manufacture of steam engines, machinery, tools, etc. The town has many interesting buildings, including the university, incorporated 1904, origin-. returns five

any means exhaust his notivities on there is to his books which he

and is the nd the fifth de a city in

Pop. 1500.

Leeds, Francis Osborne, fifth Duke of Leeds (1751-99), known before he succeeded to the dukedom as Lord Carmarthen, entered the House of Commons in 1774, but two years later was called to the House of Lords as Baron Osborne of Kiveton He was appointed in 1777 Lord Chamberlain to the queen, but, owing to his dif-ferences with the ministry, resigned that position in 1780. When, two years later, Rockingham formed a government Carmarthen was given the Paris embassy, but owing to the death of the premier he did not take up the post. He was Foreign Secretary in Pitt's administration (1783), and while still in office succeeded in 1789 to the dukedom. He was an amiable man, and a favourite in society, but as a secretary of state he was little more than a figure-head.

Leek, a market in. in Staffordshire, 81 m. from Burslem. The town is specially noted for its sewing thread and silk dye-works, and manufs, silks

and ribbons. Pop. (1911) 16,665.

Leek, a plant which is generally considered a cultivated variety of Allium amneloprasum. biennial plant, and is largely grown for food, the whole plant, with the exception of the fibrous root, being utilized. utilised.

very fine l

David's Day; but some authorities maintain that the L. has been confused with the daffodil, which in Welsh is Cenin Pedr, St. Peter's Leek.

Leer, a in. and riv. port in the Prussian prov. of Hanover. It has many manufs. and much shipping, the principal exports being cattle, horses, cheese, butter, honey, flour, paper, and hardware. Pop. 12,677.

Leerdam, a tn. in the Netherlands in the prov. of S. Holland, 13 m. S. of Utrecht. Pop. 6717.

Lees, an urban dist., tn., and par. of Lancashire, about 11 m. S.E. of Oldham, of which it is a suburb. Pop.

(1911) 3650.

Lees, Sir James Cameron, more usually styled The Very Rev. James Cameron Lees, K.C.V.O. (1834-1913), 1881-1901. His publications

History of the Abbey of Paisle History of St. Giles, Edinburg Tobersnorey, 1878; Stronbuy Life and Conduct, 1893; A H.

1893, and a county borough in 1899. the County of Inverness, 1897. He was Pop. (1911) 445,568. Chaplain-in-Ordinary to King Education and Made a Dean of the Quebec, Canada, 38 m. S. of Quebec. Order of the Thistle, and of the

Chapel Royal of Scotland, 1887.

Leet, a term used, chiefly in Scotland, for a list of persons designated as eligible for some office, and occurs in such phrases as 'to be in lect,' 'to put on the leet,' etc. 'Short leet,' a select list of a prescribed number of candidates, which is to be submitted to the elective body or the appointing authority.

Leeuwarden, a tn. of the Nether-lands, and cap. of Friesland, 70 m. N. E. of Amsterdam. The tn. is intersected by numerous canals, but well built. Has an extensive trade in grain, produce, and cattle, and important manufs. of gold and silver

ware, musical instruments, cloth, etc. Pop. 36,552. Leeuwenhoek, Anthony van (1632-1723), a Dutch microscopist, born at Delft. He made many important discoveries in the anatomy of man and the higher animals and insects. Most of his discoveries were published in the Philosophical Transactions of the Royal Society, of which body he became a fellow in 1680, and in the Mémoire of the Paris Academy of Sciences, of which he became a member in 1697. Two collections of historical caps in Dutch and one in his works, one in Dutch and one in Latin, appeared in his lifetime, and a selection from them has been translated into English by S. Hoole, 1798-1801.

Leeuwin, Cape, the S.W. point of Australia, notable for the weather generally met with there.

Leeward Islands, the name given to the group of the Lesser Antilles which skirts the Venezuelan coast. They consist of the Virgin Is., Antiqua, Guadeloupe, St. Kitts, Montserrat, Dominica, Martinique, and their dependencies. Most of the islands because of Ecology and their dependencies. long to England, and form, under one governor, a colony divided into

t Kitts · minica,

Virgin Is., but France possesses Guadeloupe. Martinique, St. Bariholomew, and part of St. Martin, while Holland has St. Eustatius, Saba, and the other part of St. Martin, and Denmark has a share in the Virgin Isles. The chief a Scottish divine. He was minister of Carnoch, Ross, 1856-59, of the Abbey of Paistey, 1859-77, and of St. Glies' Cathedral, Edinburgh, 1877-1909. He rich deposits in the islet of Redonda), was also chaplain to Queen Victoria. molasses, cacao,

t being from Antigua, with is the capital ommander-in-

Below these two

area of the British Leeward Is. is similarity in the anatomy of the hind

ray, a novelist, began writing at an early ago, and in 1837 wrote the fam above, and of the knee-joint below. Ous Irish ballad, Shamus O'Brien. He was long engaged in journalism, but he published two novels, The Cock the larger of the two bones, and the and Anchor (1845), and Torlogh O'Brien (1847), but neither attracted any particular attention. It was in tibia forms, with the lower part of the 1863, with The House by the Church-gard, that he first secured public can, the knee-joint: but but the favour, and he followed up with Uncle Silas (1864), at

Hand (1864), both por several other works of fice popularity has now waned, and he is bones come the small bones of the viving member of the family, Brinsley Le Fanu (b. 1854), is well known as an illustrator of books.

Lefebvre, François Joseph, Duc de anzig (1755-1820), Marshal of . Danzig France, born at Ruffach in Alsace. He fought at Fleurus in the revolutionary wars, and on his return to France assisted Napoleon in the coup-d'état of 1799, becoming a marshal of the empire in 1804. manded the Imperial Guard in Russia, 1812, and fought through the last campaign of the empire. After Napoleon's abdication he was made See Wirth's Le Maréchal a peer. See Lefebrre, 1904.

Lefebvre, Jules Joseph (b. 1836), a French painter, born at Tournan. Pupil of Leon Cogniet, he won the Prix de Rome in 1861 with the Death of Priam.' His best-known picture is the allegory of 'Truth. now in the Luxembourg, represent-ing a nude woman holding aloft a mirror. His other works include:
'Reclining Woman'; 'Slave Carrying Fruit'; 'Chloe'; 'Pandora';
'Psyche'; 'Lady Godiva'; 'A
Daughter of Eve,' etc. L. rivals Henner in painting beautiful women. Lefevre, George John Shaw, see

EVERSLEY, Rt. Hon. G. J. S.-L. Leffler, Anna Carlotta, see EDGREN.

Leikosia, see Nicosia. Lefort, François (1656-99), a Russian general and statesman, born and educated at Geneva. Entered the Russian service, and fought several campaigns against the Turks. modelled the Russian army and laid the foundations of the Russian navy. Appointed general-in-chief and admiral, 1693.

Lefroy, Mount, a peak, 11,660 ft. high, in the Rocky Mts., Alberta, Canada.

Leg. In common speech the word is used for the whole of the hind limb; anatomically the word applies only to the shank, or portion between full in preference to all other Ls.

chief of the British colony. The total, the knee and ankle. There is a great 701 sq. m., and the pop about 128,000. limb in all animals. The thigh has one Le Fanu, Joseph Sheridan (1814- main bone, the femur, which enters 73), a novelist, began writing at an into the formation of the hip-joint yard, that he first secured public cap, the knee-joint; but both the *la* enter into the ankle-joint, ner and the fibula

little read except in Ireland. A sur-tarsus and metatarsus forming the frame-work of the foot, and below the metatarsus come the phalanges The chief difference in of the toes. structure of the hind limb is due to the fact that in the course of evolution it has rotated inwards. The anterior part of the L. of a lizard is represented in man by the inner part, whereas the homologue of the posterior part, is the posterior outer, and anterior parts of a man's L. There are two factors which account for the specific points in the structure of the human L.: first and most important is the adoption by man of the erect posture, and the second, the disuse of the climbing habits of his ancestors—the apes. The main arterial supply of the L. is from the common femoral artery, which runs in the anterior part of the thigh; the main nerve supply is the great sciatic nerve, running in the posterior part of the thigh. At the knee the artery is the popliteal artery, a direct continuation of the femoral artery. The nerve supply from the knee downwards comes from the popliteal nerves, branches great sciatic. The artery with its vein. and the two nerves are to be found in the popliteal space at the back of the knee. The venous return is by deep The superand superficial channels. ficial group of veins, which end in the

> are liable to become varicosed. Legacy (Lat. legatum), in English law, a bequest of personal property made by a testator in his will to be paid by his executor. Ls. may be specific. cumulative

long saphenous vein, are those which

a specified .

picture, or certain shares. Such a L. is liable to ademption, that is to say, if the picture should have been destroyed by fire or the shares sold in payment of the testator's debts no compensation is made. But if the specific L. exist, it must be paid in

general policy is a gift payable out of | " " the assets and not particularly distinguished from the whole of the personal estate. It is liable to abatement only when there is not sufficient to pay all the general Ls. A demonstrative L. is primarily payable out of a specified fund, but if there is any balance to be paid, recourse must be made to the residue of the estate. cumulative L. is a second or further L. to the same person. If the two Ls. are of equal amount bequeathed by the same instrument, it is assumed that the second is a mere repetition of the first; but if they are be-queathed by different instruments or are of unequal amounts, it is assumed that the second L. is in addition to the first. A L. is not payable till a year after the death of the testator. A L. to a creditor is regarded as payment of the debt, provided it is not less than the sum owing. A L. duty was first imposed in 1780, and is charged on personalty only. The husband or wife of the testator is exempt from duty. In other cases, it varies from 1 to 10 per cent. in proportion to the remoteness of relationship between testator and legatee. See Jarman, On Wills (6th ed.), 1909; and Theobald, On Wills (7th ed.), 1908.

Le Gallienne, Richard (b. 1866), an English author and journalist, born in Liverpool. Literary critic for the Star, 1891, he soon joined the staffs of the Daily Chronicle and the Speaker. The range and quality of his general criticism is well represented in Retrospective Reviews (1896). He visited the U.S.A. on a lecture tour in 1898, afterwards taking up his residence in New York. He published several volumes of poetry and verse beginning with My Lady's Son-nets, 1887; Robert Louis Stevenson and Other Poems, 1895; and Travels in England, 1900; George Meredith: some Characteristics, 1902; The Quest of the Golden Girl, a novel.

Legal Tender, see TENDER. Legate (Lat. legatus, ambassador), atitle now confined to the ambassador or diplomatic representative of the Ls. are of two classes, legati pope. nati (legates born), and legati missi, or dati (despatched legates). The former title is now almost honorary. Legati nati were formerly attached to some ancient see, such as that Canterbury, and the title still attaches to the sacre Seville Bhains Colomb etc.

latere,

generally employed, and he is the outside the staff. plenipotentiary representative of the Legge, James (1815-97), a British pope, with full papal jurisdiction Chinese scholar, born at Huntly, within his province. (2) Nuncii or Aberdeen. In 1839 he went as

nose jurisdic- to the terms gati delegati, local clergy,

to meet some temporary need.

Legato (It., tied), a musical term indicating that the passage is to be rendered smoothly, the notes being given as if tied together, the one flowing into the other without a perceptible break.

Legazpe, Miguel Lopez (c. 1510-72), a Spanish soldier, conqueror of the Philippines, born at Zumarraga. The first settlement of the Philippine Is. was made at San Miguel, and the city of Manila founded in 1571. L. named 'Islas Filipinas,' the islands

honour of Philip II. of Spain. Legend (Fr. légende ; Lat. légenda, from legere, to read), originally the term applied to a narrative of a religious kind in the early days of Christianity, and hence used for portions of scripture and lives of the saints as read in public worship. The word later came to be applied to a story, without any foundation in history, but popularly supposed to be true, handed down from one generation to another. These Ls. were at first brief and simple, but gradually developed into long and imaginative tales of a more and more exaggerated description, so that by degrees the word came to mean a narrative, professedly historical, but in reality only traditional. The famous Golden Legend, a mediæval collection of the lives of the saints, was composed towards the end of the 13th century by Jacobus de Voraigne. The word L. is also used in connection with coats of arms and shields, and by numismatists for inscriptions or mottoes on coins or medals. See Mawry, C moyen age. Croyances et légendes du

Legendre, Adrien Marie (1752-1833), a French mathematician, born at Toulouse. Through the influence of D'Alembert, he obtained the pro-fessorship of mathematics at the Ecole Militaire, and afterwards at the Ecole Normale. He was admitted to the Académie des Sciences for a brilliant paper on the attraction of spheroids in revolution (1783), and in 1787 was appointed on the commission to connect geodetically Greenwich and Paris. In Nouvelles Méthodes pour la Détermination des Orbites des Comètes (1806) he propounded his method of least squares.

Leger Lines and Spaces, in music, the short lines and spaces above or below the staff, used to express notes

missionary to the Chinese. Until 1842 A pension is granted to the military he was stationed at Malacca, when he members according to their class, moved to Hong-Kong, where he re- and free education is given to 400 moved to Hong-Kong, where he remained for many years. His translation of the Chinese classics, completed a few years before his death, secured him a world-wide reputation. 1876 he became professor of Chinese language and literature at Oxford. Among other works, L. wrote: The Life and Teaching of Confucius, The Religions of China, Record of Buddhistic Kinadoms.

Leghorn (It. Livorno), a seaport of Tuscany, the chief town of the prov. of the same name, on the W. coast of Italy, 12 m. S.W. by rail of Pisa. The most interesting of the buildings are most interesting of the buildings are the 17th -century cathedral, with its façade designed by Inigo Jones; the 16th-century Fortezza Vecchia overlooking the larbour, and the Torre del Marzocco. The north-west portion of the town is traversed by many canals. In the 14th century L. was under the dominion of Pisa. At the beginning of the next century it came into the hands of France, who sold it to the Genoese in 1407. It was purchased by the Florentines in 1421, from which time its prosperity dates. In 1606 the port and harbour was opened to traders of all nationalities, and it was a free port from 1691 to 1867. Fortifications have been built by the control of the reare numerous higher than and warehous. The chartening the street are the manuf. of glass, cement, electric plant, porcelain, etc. The exports include 'Leghorn' hats, olive oil, wine, timber, silk, preserved fruits, coral, etc. New harbour works were started in 1910. L. is a popular sea-bathing resort. Pop. 125,000. The prov. of L., consisting of the commune and the islands of Elba and Gorgona, has an area of 133 sq. m. and a pop. of 132,000.

Legion (Lat. legio), a division of the Roman army. The legionaries were regarded as the pick of the army. They were Roman citizens, and received greater privileges and highest

numbered four to six thousand men, comprising equites, cavalry drawn from the noble families of Rome; triarii, or pilani, veterans forming the reserve; principes, highly trained infantry; velites, skirmishers; and hastati, inexperienced troops. At the death of Augustus (14 A.D.) there were twenty-five legions.

created by Napoleon in 1802 as a reward for military and civil ser

At present it embraces five cli Grands Croix, Grands Officiers, mandeurs, Officiers, and Cheva of the daughters or sisters of its The president of the remembers. public is grand chancellor of the order. Legislation and Legislative Pro-

cesses. Legislation means the making of laws by a sovereign body elected or otherwise existing for that purpose. Although at the present day legislation popularly connotes exclusively the formal r liaments or connotation erwhelming importance of this one process of legislation, it is to be noted that there co-exist other sources of new laws, or at all events newly applied legal principles. In England the crown still possesses, by virtue of its prerogative (see under Crown), some ill-defined power of legislating in an emergency by proclamation, though it would probably do so on the advice of the ministry and its action as pro-bably endorsed by an Act of Indemnity. Again, the judges have a covert and unavowed power of legislation. It is an axiom of legal administration that the English judges only declare law; but a study of the law reports makes it apparent that old rationes decidendi, or principles, are constantly undergoing a slow but gradual reversal or modification by the process of engrafting so many exceptions on them as ultimately to render the old principles unrecognisable. At one time the English judges were so confident of the perfection of the common law that they began to act on the principle that statutes were nugatory unless their meaning was clear to the mind of the judge himself. This principle of interpretation was not long encouraged. It obviously opened the door to prejudice. Modern English judges either interpret enacted law

where the natural meaning is rejected in favour of one more consonant with the intention of the legislature. Generally speaking, however, judges have no concern with legislational intentions if those intentions have not found expression in enactments.

In progressive societies legislation. eath of Augustus (14 A.D.) there according to Maine, comes last in historical order among the agencies Legion of Honour, an order of merit by which law is brought into har-

mony with society (see Equity,

obligatory force in no way depends social relations should in all conceivupon its principles, for theoretically parliament or an autocratic prince can legislate in defiance of public opinion. That legislatures do not in fact do so at the present day is because their enactments are in accordance with the morality and senti-ments of either the actual majority or at least a very respectable proportion

ould be an inquiry to

custom or customary law (see Cus-TOMS, CONSUETUDINARY) and legisla-Customs have frequently crystallised into legislative enactments. and on the other hand, general enactments have often expressly respected customs. At all events one assertion of Maine's seems historically accurate that generally speaking the epoch of customary law is everywhere the immediate predecessor of the era of

codes (q.v.).

Legislation in the sense of enacted law everywhere tends to absorb all other sources and even forms of law. Rights and duties may, of course, be created by private bodies in whom has been vested a restricted autonomy. For example, the shareholders of a company may, by a resolution at a general meeting, alter the Articles of Association, and such alteration will, even if not unanimous, be binding on the minority if not otherwise ultra vires. This species of autonomic law, if the Austinian conception of law as a command imposed on an inferior by a superior without reference to the will of the former be regarded, is, therefore, the product of a true form of legislation, though in a wider sense it may be assumed to be merely what in jurisprudence is called 'conventional law,' or law which creates rights and duties by vir ment. But even in these modes of legislation, or

tion, the hand of enacte cernible, e.g. in the minute details to legislation is that parliament has won be found in the Companies Consolidation itself the position of being the extion Acts, relating to the manner of altering the articles of a company. Statute law in England, as will be seen in the Year Books, occupied quite a minor position as compared with common law in the middle ages. Practically two-thirds of the Acts recorded on the statute book between the middle of the 13th and the middle of the 19th century were passed in the last 200 years of that period. The rate is now considerably accelerated, and the activity of the present Liberal government during its seven years of office is manifested by the size of the authorised backs. by the size of the authorised books of statutes. It is not surprising that, the present state of society,

able cases be regulated by legislation. whatever may have been the case in what is called by Professor Hobhouse the authoritarian stage of society. It is one of Maine's aphorisms that society has moved from status to contract, or, as it may with less accuracy be termed, from inequality to equality. The Austinian definition of law as a command is justified when applied to an era characterised by arbitrary and unconstitutional legislation imposed on a people whose bodies were virtually at the disposal of their sovereign, and their minds, in tacit acquiescence with the then established order of things, accepted the royal authority as a divine mandate. Democratic ideals have, however, destroyed the truth of Austin's definition as applied to present-day legislation. Even if legislative Acts in England are not imposed by consent in quite the same degree as Acts imposed through a referendum (see Initiative). the principle of representation ensures the almost completely consensual nature of modern statute law. ther, the principles of status or caste having at all points yielded to those based on agreement or contract, it follows that fresh rights and duties will, for the most part, have to be embodied in legislative expression

before they will be respected.

It is asserted by some writers that the mass of modern legislation is explained by the fact of the abandonment of the doctrine of laissez faire, and the consequent extended range of activity of the central authority in the state, whether in the shape of direct or indirect legislation (see LOCAL CENTRALISATION, GOVERN-MENT). Professor Robertson (Lord Guthrie) has given it as his opinion tion in which the

to interfere is as ever been, and e of the prolific

clusive source of legal changes. This is, no doubt, an element in the cause, but the social reformative and local governmental legislation (see LOCAL GOVERNMENT, LIBERALISM) of the last thirty years is against Professor Robertson's assumption; and in any event this activity of the central authority is not the expression of the arbitrary will of a sovereign suddenly roused, but that of deliberate public opinion. It is public opinion which gives the real sanction and seal to legislation, and the morality mani-fested by that opinion is the whole principle of the science of legislation. Legislative processes. - In ancient Rome, there was but little direct

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law-making, except to meet temporary emergencies. Such laws as were made were first proposed and determined on by the senate, under the guidance of the king as the chief magistrate, and then submitted to the supreme council of the gentes (comitià curiata). The king himself as pontifer maximus promulgated laws (leges regiæ) relating exclusively to religious ceremonies. Later, and after the assembly of the tribes had superseded that of the centuries, the chief process of legislation was by plebis-cila, though the ordinances of the senate (senatus consulta) from being of doubtful authority were gradually acquiring importance. The senate also issued injunctions in the form of directions to particular magistrates, and, according to Puchta, before the cra of the republic had closed, made era of the republic had closs, independent enactments by decree gion, police, After the

empire, the anged com-

ource. emperor, nominally only chief magistrate, acquired the imperium, supreme command in the state, and gradually absorbed the sole legislative authority, dictating to the senate what it was to enact or else enacting law himself. The processes by which the emperor's will expressed itself in legislation were by edicta, enunciated in his capacity as magistrate, mandates, or orders, directed to particular officers, epistles addressed to dividuals or public bodies; decrees or judicial sentences having the force of precedents; and rescripts to magistrates by way of answer on points of difficulty. Nominally the people con-tinued to make laws, but they were no more than laws passed at the bidding of the emperor. The process of legislation was for the emperor to lay a bill or ler before the senate in an oratio or epistula, after which it received the more or less formal auctoritas of the senate. A curious instance affording a modern parallel to the Roman imperial oratio was the astonishing communication of President Taft in 1912 to the Congress, inviting the latter to pass the Panama Canal Bill, which Bill, according to English opinion was a flat violation of the Hay-Pauncefote treaty. In England, legislation under the Norman kings was by charter issued by the king and assented to by the barons; these charters were hardly more than confirmations of customs and liberties (see under Franchise). The Angevin kings made laws by assize (assisa, statute) issued by the advice and consent of the barons,

bers of the royal council, and proclaimed in the shire courts by sheriffs. According to Stubbs they remained in force during the royal pleasure. In Henry III.'s reign, legislation was, by a form, called pro-visions, e.g. the Provisions of Oxford; and towards the end of the 13th century by statute and ordinance. Statutes were enacted by the assent of the prelates, earls, barons, and the commonalty of the realm. Statutes were generally founded on petitions addressed to the king by the Commons, with the assent of the prelates, earls, and barons. The petitions were referred to a committee of the peers and answered by the king on their advice, the statute itself being framed from the petition and its answer (see Feilden's Short Constitutional History of England, and Stubbs's Select Charters). The prerogative power of legislation by ordinance was of short duration, and the enactments so made were not enrolled in the Year Books, unless ultimately converted into Acts of parliament. When the executive and legislative functions became more clearly separated, and the Commons had gained the controlling power in initiating legislation, they protested against legislation in the guise of an executive ordinance, and accord the 15th

the 15th ·

century in issued by the crown in council by way of supplement to statute law, and later as completely independent autocratic enactments. Charles I. issued many of these illegal proclamations, but they disappeared after 1640. The claim of the Stuart kings to dispense the operation of particular with statutes in individual cases, or to suspend an Act altogether, was abrogated by the Bill of Rights in 1689. The crown can, however, still manifest the residue of its discretionary power by means of Orders in Council, and Proclamations; but they are probably made subject to the assent of parliament and, in any case, are revocable by statute. Legislation is now by Bill passed in both houses of parliament, or under the Parliament Act, passed in the Lower House, and thrice within a period of two years submitted to the Upper House, and assented to by the king. (For the procedure see under PARLIAMENT; COMMITTEES).

the king and assented to by the barons; these charters were hardly britain, the process of legislation in more than confirmations of customs and liberties (see under Franchish), and the Federal legislation, is by bills The Angevin kings made laws by presented to and passed by two assize (assiza, statute) issued by the chambers—a House of Representa-advice and consent of the barons; tives, and a Senate. The subjects of archbishops, abbots, and other mem- state legislation, as distinct from fede-

tive life of the nation, and all powers not expressly allotted to the Federal government are left automatically to the states as of right. The two Federal assemblies of the central government together form Congress. Every bill introduced in the House of Representatives is referred to one of some sixty different committees, and then comes up for deliberation by the whole House. It seems that very few of the vast number of bills brought in pass. A bill that passes is then sent to the other House, and goes through a similar process. A compromise by conference may be effected, where the bill as passed in each House differs. If the bill passes both Houses, it is sent to the president, and if approved by him, and not returned within ten days, automatically becomes law. vetoed by the president, it is sent back to its House of origin, and if again passed by a two-thirds

referred back to the other if there passed by a lik becomes law without the president's assent. Changes in the constitution require for their validity the sanction of three-fourths of the states, and apparently no state can be constitutionally deprived of its equal suffrage Senate without its consent. Unconstitutional enactments, whether of Congress or the States legislatures, are void, and are so treated by the courts. Legislation in Germany, France, and most other civilised nations of to-day, is fundamentally similar in process to that of the bicameral and representative systems of Great Britain and the United States. See also under the See also under the respective countries.

Legislature, the body of men in any state constitutionally vested with the power to make, amend, or repeal laws. Constitutionally, the sovereign L. in England is the House of Commons, the House of Lords, and the King. But the king's veto is never exercised (see also Crown), and the Parliament Act has cut down the power of the Upper House to this extent, that bills three times sent up to that House within the space of two years automatically become law. There is automatically become law. There is theoretically nothing which a sovereign L. cannot do, but in those states where the L. is representative the will of the L. is more or less a faithful reflection of the will of the political sovereign—the electorate (q.v.). In England there is no law that the L. cannot make or alwayers. cannot make or abrogate, but in U.S.A. unconstitutional laws are void and can be so treated by the courts; Switzerland the Federal Assembly cannot alter a constitu-

ral legislation, are limited to those which do notrelate solely to the collective life of the nation, and all powers which corressly allotted to the Federal government are left automatically to the states as of right. The two Federal assemblies of the central government together form Congress. Every bill relations of the English L and the introduced in the House of Representatives is referred to one of some sixty different committees, and then comes up for deliberation by the See also Legislation and Legislation.

Legitim, or Bairn's part of Gear, in Scots law, that portion of the free movable property of the father to which his children are entitled at his death. If the father leaves one or more children but no widow, the former get one-half as their L., the other half being dead's part (a.v.). If he leave both widow and children, the widow takes one-third, one-third goes to the children as L., and the remaining third is dead's part (sec also Jus "). There is no right of repreas to L., and hence the

as to L., and hence the of a deceased child have no claim to that part of their grand-father's estate which their parent would have been entitled to as L. had he survived. The right to L. is defeated if the father makes provision, however small, for his children in an antenuptial contract of marriage, expressly by way of substitution for L., but if he settles the whole of the property on the children by such contract, even though subject to a liferent (q.v.) for the wife, the right to L. is excluded by implication (see also FORISFAMILATION). Generally speaking, children claiming L. must collate any separate provision received by them from, or any advancement made to them by, the father (see HOTCHFOT); and this applies to the heir in heritage, who must collate the heritage, unless he be an only child. Bell's Principles of the Law of Scotland; Erskine's Principles of the Law of Scotland.

Legitimacy. By English law, a child born anywhere in lawful wedlock is legitimate, i.e. to quote a hypothotical case in Foote's Medical Jurisprudence, if people are married at two o'clock, and a child is born at three o'clock on the same day, that

born s law recognises teguimano per suosequens matrimonium, i.e. legitimation by the subsequent marriage of parents (see LEGITMATION). Questions of L. have frequently arisen in law-suits

less the subsequent marriage of L. have frequently arisen in law-suits when, though a child has been born in wedlock, the parties have not been accessible to each other. But a man's accessibility to his wife is by the Eng-

lish law of evidence taken for granted if, to use a quaint old phrase, he was 'within the four seas of the realm.' English law, however, recognises as legitimate children born out of weddeck, but whose parents have subsequently married, if both the law of the father's domicile at the date of birth and that of his domicile at the date

exclusively by the law of the place where the property is situate (see lex loci rei silæ, under Lex Loci), and if that law allows legitimation, the child is legitimate. And generally it is a principle of the comity (q.v.) of nations to recognise the L. of children who are legitimate by the law of their place of origin, i.e. the father's domicile. Apart from these cases the status of L. cannot by English law be acquired by

the father's

Illegitimate children are not to any disabilities in Englar political nature. The only quences of illegitimacy are in regard to the devolution of property on in-

testacy (see Inheritance, Distributions, Statutes of, Heir, Descent). No person born out of wedlock can be an heir to English real property, though such property may, of course, be validly left to him by will. Nor can such a person ever succeed to a peerage or other hereditary dignity, for these are not the subject of testamentary disposition. It is to be noted that the effect of the Colonial Marriages (Deceased Wife's Sister) Act, 1906, allows the L. for all I

1906, allows the L. for all fincluding the succession to he dignities of the issue of a with a deceased wife's sister,

at the date of such marriage each of the spouses was demiciled in a part of the British empire on which at that date such

ject to this, in propert;

disturbed. The Deceased Wite's Sister's Marriage Act, 1907, has the effect of legitimising the issue of any union with a deceased wife's sister, whether contracted before or after the Act was passed (see also under DECEASED WIFE'S SISTER). Applications to the Divorce Court for declarations of L. or validity or invalidity of marriage, are made under the visions of the Legitimacy Declaract, 1858. Under that Act a primary also claim to establish his

(see also as to Scottish law under Legnano, a DECLARATOR).
Legitimation, in Scots law, is the Pop. 17,500.

to be deemed a natural-born su'

act by which children born out of wedlock are made lawful for the purpose of extending to them the privileges of truly lawful children. L. per subsequens matrimonium is a process derived from the canon law, which allowed the L. of all bastards (q.v.), whether the offspring of concubinage or not, if the parents were capable of marrying at the date of concep-

on (some authorities say the date birth) and afterwards actually parried. Hence, if either the father or mother were married to another at the date of conception (or birth), the offspring could never be subsequently legitimated. L. per subsequens matrimonium gives the bastard the full rights and status of lawfully begotten children, e.g. he may succeed equally with other issue to property on an intestacy, is entitled to legitim, etc. (q.v. and Dead's Part). parents are domiciled, have bastard children, and then marry in a country the law of which does not recognise L., the children are not · to real estate in

w applicable is see LEGITIMACY and LEX LOCI). Another mode of L. recognised by Scots law is by letters of L. from the sovereign (L. per rescriptum principis). Generally

speaking, the only effect of this mode of L. is to defeat crown rights to property on intestacy; for in form letters of L. confer a right on a bastard who has no lawful issue to dispose of his property during his lifetime or by will, which right he enjoys independently of such letters. The law of L. does not apply to

The law of L. does not apply to England. See Bell's Principles of the Cee also LEGITIMACY.

legitimistes, from legitimate), the

a party in France, who, after the Revolution of 1830, continued to uphold the claims of the elder branch of the Bourbon house. The position of Napoleon III. at the head of affairs retarded their cause, but on his fall in 1871 their hopes were raised. The Comte de Chambord gave them his support, but on his death in 1883 their party was practically dissolved, only an insignificant remnant remaining (see BOURBON FAMILY). The word legitimiste has now spread beyond France, and is applied in England to any supporter of monarchy by hereditary right as

other title.
33 m. S.E.
one of the
so-called
m.) 15,000.

Legnano, a tn. of Italyin Lombardy, prov. Como, 16 m. N.W. of Milan.

Alps, Italy, the highest summit of Italy, on the E. side of Lake Como.

Has an altitude of 8565 ft.

Legouvé. Gabriel Jean Baptiste Ernest Wilfrid (1807-1903), a French dramatist and academician, born in Puris. In 1832 he published a little volume of verses entitled Les Morts Bizarres, followed by a succession of novels, the chief being Edilh de Falsen. In 1849 he made his mark as a dramatist with Adrienne Lecouvreur, written in conjunction with Scribe. In 1855 appeared his tragedy of Médée, which achieved a great success. Later he became less prominent as a playwright, and was known for his studies on the character and needs of women on the character and needs of women and children in France. His La Femme en France au XIX Siècle, Messieurs les Enfants, Conférences Parisiennes, Nos filles et nos fils, and Une éducation de jeune fille were works of wide-reaching influence in the moral order. See Quérard, La France I illusques. France Littéraire.

Legrand, Jacques Guillaume (1753-1806), a French architect, born in Paris. He was employed as architect of most of the public edifices in Paris, amongst them being the Halle au Blé, Halle aux Draps, and Théatre Feydeau. Molinot was his colla-borator in these works. L. was also sole architect of the little building known as the Lanterne de De-mosthène in the Park of St. Cloud, which was destroyed during the war of 1870. He wrote Essai sur l'histoire de l'architecture, and Parallèle entre

l'architecture ancienne et moderne.

the museum at Tours. In 1859 his 'Angelus' was exhibited, and was highly praised. In 1863 L. came to England and married, and be-came teacher of etching at the S. Kensington School of Art, and in 1876 Slade professor at University College, London, in succession to E. J. His pictures are chiefly Poynter. French rural scenes and portraits and Bénédite, Sec Leoncé etchings. Alphonse Legros' in Revue de l'Art, Paris, 1900.

Legya, or Laihka, a vil. in Shan States, Upper Burma, 120 m. S.E. by E. of Mandalay. Produces rice, cotton, and sugar-cane. Manufs. iron and lacquer ware. Pop. (state)

26,000.

Loh, a tn. of Kashmir, India, cap. of Ladakh, 160 m. E. of Srinagar, It is conclosed by a wall and towers, and has several Bluddist temples, a rajah's palace, bazaar, observatory, and mint. It is the great rendezvous lieve

Legnone, Monte, a mountain in the for intercourse between the Punjablps, Italy, the highest summit of and Tibet, and Chinese Turkestan. It has an active trade in shawl-wool. L. lies between the Indus, about 5 m. distant, and a chain of mountains.

Lehe, a com. of Prussia, prov. of Hanover, 2 m. N. of Bremerhaven. Has breweries and distilleries. Pop.

37,454.

Lehigh, a riv. in Pennsylvania, U.S.A., 120 m. long. Anthracite mines are worked near it, and it has slack-water navigation to Whitehaven.

Lehighton, a tn. of Carbon co., Pennsylvania, U.S.A., on the W. bank of the Lehigh R., 20 m. N.W. of Allentown. It has coal mines and manufs. of silk, waggons, etc.

(1910) 5316.

Lehmann, Rudolph (1819-1905). a German painter, born at Hamburg. Much of his work done while sojourning at Rome represents the manners and scenery of Italy. Some of his best known pictures are: 'Sixtus V. blessing the Pontine Marshes, 'A Reaper whose Name is Death,' and 'Early Dawn on the Pontine Marshes.' In 1894 he published An Artist's Rcminiscences, and two years later, Men

and Women of the Century.

Leibniz (more commonly known as Leibnitz), Gottfried Wilhelm, Freiherr von (1646-1716), a German philosopher and mathematician, born at Leipzig. In 1661 he entered the University of Leipzig as a law student, and in 1666, being refused his doctor's degree on account of his youth, he applied to the university town of Nuremberg, Altdorf, which not only conferred upon him his degree but offered him a professor's chair. At Nuremberg he made the acquaintance of Baron von Boineburg, who advised him dedicate his treatise, Nova methodus docendi discendique juris, a proposal for the reform of the Corpus Juris, to the Elector of Mainz. In this way the young man attracted the attention of the Elector and entered his service. At first L. assisted in the revision of the statute book. In 1669 he was re-

tionum politicarum pro rege Polonorum eligendo had not the desired effect, and a Polish prince was elected. At this time Germany was in danger of attacks by the aggressive Louis XIV.. and, in order to divert his attention from any such projects, he was approached with a scheme of L. for the French conquest of Egypt, In 1672

pour laid • and

plan for the invasion of Egypt on finding the Consilium in Hanover in 1803. In Paris L. made the acquaintance of Christian Huygens, who spurred him on to a deeper study of mathematics. Here, too, he became the friend of Arnauld and Male-branche, and during his visit to London he met Newton, Boyle, and Oldenburg. He invented an intricate calculating machine, for which he was elected a fellow of the Royal Society of London in 1673. About the same time he discovered a new method of the differential and integral calculus. which Newton also claimed as his invention. On his return to Germany in 1673, L. left the service of the Elector of Mainz, and placed himself under Duke John Frederick of Brunswick-Lüneburg, who, in 1676, appointed him librarian at Hanover. He was also employed to write a history of the house of Brunswick, and visited the libraries of the chief cities of Germany, Austria, and Italy to collect hismaterials. He was much interested in the suggested union between the Roman Catholic and Protestant churches, and contributed to the discussion Li-Sulana ell Listana veri ten in 10-6, but not published till 1819. In 1700 bed on the four ba, at his instigation, founded the Akaat his instigation, founded the Akademie der Wissenschaften at Berlin, and L. was elected president for life. While on a visit to Vienna, 1712-14, he was elected an imperial privy councillor and made a baron (Reichsfreiherr) of the empire. On his return he found that the Elector George of Hanover had been created king of "Id have master

 remain behind to finish his history. Two years later he died. In 1696 he wrote his Nouveaux Essais sur l'Entendement Humain (1765), which is a critical analysis of Locke's Essay on the Human Understanding, published in 1690. In 1710 he published Essais de Théodicée sur la bonté de Dieu, la Liberté de l'Homme, et l'Origine du Mal, and in 1714 appeared La Monadologie and Principes de la Nature et de la Grace. L. had read widely, and, having assimilated various philosophical systems, his own is somewhat eclectic. It stands between the dualism of Descartes, who separated all things into two heterogeneous substances, and the monism of Spinoza, who held that all are absorbed in one divine substance. In L. doctrine of substance, the universe consists of simple and similarly constituted monads, which differ in quality but are all alike in being percipient and self-active. These series of monads, though acting independently, are all in harmony

with each other and with God, who is the prime and efficient cause of all things. He held that the ultimate reality of substance is force, each monad having an inherent striving property, the ultimate aim of God's universe being perfection. He recognised the presence of evil, but believed in its final suppression, thus contend-ing that this is the best possible world, and that faith and reason are essentially harmonious. No complete edition of the works of L. has yet been published. The best editions Dutens, Opera Omnia, 1768; Pertz and Gerhardt, Leibnizens ge-sammelle Werke (19 vols.), 1843-90; Foucher de Carell, 1859-75; Erdmann, Leibnitii opera Philosophica, 1840: Gerhardt, Die Philosophischen Schriften von G. W. Leibniz, 1875-90; and Leibnizens Mathematische Schriften. 1850-63. Consult the biography by G. E. Guhrauer (2 vols.), 1842; Grote, 1869; and Pfleiderer, 1870; and critical studies by Fluerbach, 1844; Caspari, 1870; A. Pichler, 1869-70; Couturat, La Logique de Leibniz, 1901; E. Cassirer, Leibniz's System, 1902, and C. Braig, Leibniz, 1907; A. W. Russell, A Critical Exposition of the Philosophy of Leibniz, 1900; and L. Daville, Leibniz historien, 1909.

Leicester, the county tn. of Leicestershire, England, 971 m. by rail from London. It is one of the oldest towns of England, and stands on the site of the ancient Rate. Formerly it was the seat of an abbey, in which Car-dinal Wolsey died in 1530. Its Norman castle was dismantled by Charles I. in 1645. The staple trade of the

1. in 1645. The staple trade of the town is woollen hosiery, and there are also manufs, of boots and shoes, lacemaking, and various other industries. Pop. (1911) 227.242.

Leicester, Robert Dudley, Earl of (c. 1532-58), the fifth son of John Dudley, Duke of Northumberland, and a favourite of Queen Elizabeth. He went to court at an early age, and was married to Amy Robsart in 1550. His father was executed for supporting Lady Jane Grey in 1553, and Dudley, who aided in the attempt to place her on the throne, was imprisoned in the Tower. On the accessional of the control of the con sion of Elizabeth he was released, and soon became the Queen's favourite. In 1560 his wife met her death by falling down a flight of stairs, and it was generally believed that either Dudley or Elizabeth had planned the accident (see Scott's novel, Kenilworth). L. seems to have had little or no influence with Elizabeth in political affairs, but in 1585 she placed him command of a correlation to the in command of an expedition to the Netherlands, and in the following year he was appointed governor. In this position he showed himself incapable, and was recalled in 1587, following year. dying the See Bekker's Elizabeth and Leicester, 1890.

Leicester, Thomas William Coke, first Earl of (1752-1842). He was member of parliament for Norfolk from 1776 until 1806, and again from 1807 until 1832. He became a farmer on a large scale, and interested himself in breeding. He became in 1837 Earl of Leicester. There is a bio-

graphy by Mrs. Stirling. Leicestershire, a midland co. of England. The surface is chiefly low and flat with a few hills, the highest eleva-tion being that of Bardon Hill (912 it.) in Charnwood Forest (q.v.). The principal rivers are the Trent, the Avon, and the Welland. Nearly the whole county is under cultivation, the pastures being good; cattle are reared extensively, and there is a special breed of sheep known as the New Leicester. Dairy farming is also carried on, and the famous Stil-ton cheese is made near Melton Mowbray, which is also famous for a certain kind of pork pie. It is a great hunting county, and in con-sequence horse-breeding flourishes. There are considerable mining industries, coal, limestone, freestone, and granite all being found. The county has been famous for its wool as far back as 1343, and has large hosiery manufactures at Leicester, Loughborough, Hinckley, etc. Boots and shoes are manufactured at Market Harborough, and there are also brick fields and iron foundries. It contains six hundreds, and returns four members to parliament. The area is 359 sq. m. Pop. (1911) 481,115. See Victoria County History Lieuter and Pop. (1912) 481,115. See Victor fory, Leicestershire.

Leichhardt, Friedrich Wilhelm Ludwig (1813 - c. 1848), a German explorer, born at Trebatsch in Prussia. He travelled for a time on the Continent and in England, and then went to Australia in 1841, where he immediately began geological investigations and conducted important explorations, later described in his Contributions to the Geology of Australia. He set out on a second expedition in 1844, publishing the results in his Journal of an

Expedition in Australia, froton Bay to Port Essington. L.

1848, his last expedition in and from that time nothing was heard of him. See Life by Zuchold, 1856.

Leichlingen, a tn. in the Rhine cov. of Prussia, 12 m. S.S.W. of prov. of Prussia, 12 Elberfeld, Pop. 7042. Leiden, see LEYDEN.

Leigh, a tn. in Lancashire, England, 7 m. S.W. of Bolton. Has extensive (1877) was purchased by the Chantry textile manufactories and glass works, Bequest; 'The Sluggard' and 'Need-

and coal is found in abundance. Pop. (1911) 44,109.

Leigh, Henry Sambrooke 83), an author, wrote the libretti of many comic operas and opera-bouffes. but he is best known, and now only remembered, for his verses, Carols of Cokkayne (1869), Gillott and Goosequill (1871), and Strains from the Strand (1882).

Leigh-on-Sea, a rising watering-place of Essex, England, 2 m. W. of Southend, of which it is really an ex-tension. Pop. (1911) 7716.

Leighton, Frederick Leighton, Baron (1830-96), an English painter and sculptor, bor sculptor, bo

Segnolini, ar Segnolini, ar years there he went to Frankfort, visited Brussels and Paris, then settled down to study under Edward Steinle. His first picture to attract attention in England was 'Cimabue's Madonna carried in Procession through the Streets of Florence,' which was exhibited in the Royal Academy in 1855, and which was bought by Queen Victoria. The following year he sent another pic-ture, 'The Triumph of Music.' but it was not so successful, and he did not exhibit again until 1858. In 1866 he moved into his now famous house at Holland Park Road, containing a beautiful Arab hall with Damascus tiles, which has since been purchased by the nation. Among his earlier pic-tures was the popular 'Wedded,' but it was in his treatment of classical subjects that L. especially excelled, and among his most famous pictures may be mentioned: "Venus disrobing for the Bath" (1867), "Helios and Rhodos" (1869), "Clytemnestra"

for the Bath, (1867), 'Helios and Rhodos,' (1869), 'Clytennestra' (1874), 'The Daphnephoria' (1876), 'Phryne' (1882), 'Cymon and Iphigenia' (1884), 'Captive Andromache' (1888), now in the Manchester Art Gallery, as is also 'The Last Watch of Hero' (1877), 'The Bath of Psyche' (1890), bought by the Chantry Bequest, 'The Garden of the Hesperides' (1892), 'Perseus and Andromeda' and the 'Return of Persenbone.' both (1892), Ferseus and Aldroneus and the 'Return of Persephone,' both in the Leeds Gallery (1891), and 'Clytic' (1896). L. was elected an in 1868, and exhibited picture, 'St. Jerome,' in 1868, and exhibited in

came president in 1878, when he was knighted, being raised to the peerage a few days before his death. His work is characterised by the beauty of the composition both in form and colour, and his almost perfect draughtsmanship made him unrivalled in his decorative work. L. also excelled as a sculptor; his 'Athlete struggling with a Python'

As an illustrator he also did good work, especially for the cuts to Dalziel's Bible, and a series of illustrations for George Elliot's Romola, which reveal an unsuspected sense of humour. His decorative work may Museum in the fresco, 'The Industrial Arts of War and Peace,' also his 'Cimabue' in mosaic. Lyndhurst Church also possesses mural decora-tions illustrating 'The Parable of the Wise and Foolish Virgins,' to the memory of Mr. Pepys Cockerell. possessed many foreign orders and distinctions, and belonged to all the principal foreign academies. Art Annual (Mrs. A. Lang), 1884; C. Monkhouse, British Contemporary Artists (London), 1899; and Ernest Rhys, Frederick, Lord Leighton (Lon-don), 1898 and 1900.

Leighton, Robert (1611-84), Archbishop of Glasgow. From 1641-52 he had the care of a Presbyterian church in Newbattle, Midlothian, and from 1653 to 1660 (2) was principal of the church of the church of the care cipul of his old university. For nine years from 1661 he held the bishopyears from 1001 he held the olshop-ric of Dunblane, and in 1670 ac-cepted from Charles II. the arch-bishopric of Glasgow. Four years later he retired into private life. Bis-hop Burnet paints L. as a sombre divine who rarely smiled, and who, like Milton's Penseroso, walked towards death silent and solitary. His writings reveal a true literary sense and an intellectual outlook in advance of that of other divines of his day.

Leighton Buzzard, a market tn. of Bedfordshire, England, 36 m. N.N.W. Straw-plaiting is the of London. principal industry, and there is some trade in timber, corn, and iron. It has a fine old cruciform church. Pop. of urban dist. (1911) 6784. See J. Stevenson's Old Times in Leighton

Buzzard, 1891.

Leiningen, a former principality of Germany, dating back to the 11th century, now shared mainly between Baden, Hesse, and Bayaria since the

peace of Luneville in 1801.

Leinster, the S.E. prov. of Ireland, comprising the counties of Dublin, Kildare, Carlow, Kilkenny, King's, Vandare, Carlow, Kilkenny, Month Queen's, Longford, Louth, Meath, Westmeath, Wicklow, and Wexford. Has an area of 7622 sq. m. Pop. (1911) 1,160,328.

Leionon, or Alosasaurus, a genus of fossil reptiles, belongs to the family on the r. b. of the Elbe, Bohemia, Aus-Mosasauride, and the species are tria, 36 m. N.N.W. of Prague. There found in the Upper Cretaceous system of Europe and N. America.

Leipa, see Bourneau, I. 1997.

Leipa, see Böhmisch-Leipa. Leipzig, a tn. 350 ft. above the sea-level and 70 m. N.W. of Dresden in

less Alarms' being exhibited in 1886. the kingdom of Saxony, Germany. It is situated in a flat and fertile tract of country, close to the confluence of the Elster, Pleisse, and Parthe. There are two great fairs, held at Easter and Michaelmas. Its book trade is not far short of that of Paris and London, and there are over 900 booksellers and publishers in the town. Cigars, lace, ethereal oils, etc., are manufactured, and there are thriving iron and cotton industries. The Gothic Rathaus, built in 1556, flanks one side of the spacious market square, and close by is Auerbach's 'Hof' (1530), famous for its association with Goethe's Faust. The town is adorned with many statues. L. is pre-eminent in art and culture. After Berlin and Munich it boasts the largest number of undergraduates, and traces the history of its univer-sity back to 1409. Mendelssohn founded the conservatoire in 1843, and the Gewandhaus concerts, the operas, and the numerous choral and orchestral societies bear witness to the fulness of its musical life. In the neighbourhood is the famous battle-In the field where in 1813 Napoleon was defeated by the allies. Pop. (1910) 585,743.

Leisnig, a tn. 26 m. E.S.E. of Leip-g, Saxony. Industries: textiles, zig, Saxony. shoes, and machinery. Pop. 7994.

Leiston, or Leiston cum Sizewell, a par. and vil. in Suffolk, England, 21 m. S.S.W. of Lowestoft. Here are and agricultural implement works. It contains ruins of a 14th or

15th century abbey. Pop. (1911) 4359. Leith, the port of Edinburgh, Scotland. It is situated on the southern shore of the Firth of Forth in the county of Midlothian, and its southern extremity adjoins the northern border It does a large of the metropolis. with Hamburg, traffic Antwerp, statin. With Hamburg, Antwerp, Stettin, Copenhagen, and Christiansand, etc. The harbour, dock, and warchouse accommodation is excellent. Shipbuilding, engineering, soap-boiling, and sugar-refining are the chief industries, and the whisky trade is centred here. The net tonnage of vessels entering and departing was 3 290.683 in 1010 Perarting was 3 290.683 in 1010 Per parting was 3,220,683 in 1910. Pop. (1911) 80,489.

Leitha, a riv. of Austria-Hungary, rising at the junction of the Schwarzau and Pittenau mountains. It flows generally N.E. for 110 in., and joins the Danube at Ungarisch-Altenburg.

d L. is called Pop. 15,450.

Leit-motif (Ger., leading motive), a

musical term used to describe a dis-1 tinctive passage or phrase, forming the principal theme of a composition, first popularised by Wagner for the basic material of his musical dramas.

Leitomischl, or Leutomischel, a tn. Bohemia, Austria, 32 m. S.E. of öniggrätz. It contains a castle, Königgrätz. Piarist college, and manufs, jute and

woollens. Pop. 7795.

Leitrim, a maritime co. of Ireland in the prov. of Connaught, bounded N.W. by Donegal Bay. The surface of the county varies, the N. being mountainous, the S. more or less level, and the scenery is extremely beautiful. In the N. are the Druskbeautiful. In the N. are the Drusk-more Hills, but E. of Lough Allen is Slieve Anierin (1922 ft.), the highest point in the county. The chief rivers are the Shannon, the Bonnet, the Drones, and the Duff. There are numerous loughs, of which Lough Allen (8900 acres) is the largest; and the trout fishing is very good. A small quantity of coal is found, but the county is not very productive; the soil is moist and heavy, and the grain crops are poor. Potatoes are grown, and some cattle Potatoes are grown, and some cattle and sheep reared. Linen of a rough kind is manufactured, and there are some potteries. It is divided into five baronies, but the only two towns are Carrick - on - Shannon and Manor Hamilton. There are two parlia-Manor mentary divisions, each returning one member. Area 619 sq. m. Pop. (1911) 63,557,

Lekin, a Chinese transit duty, see

LIKIN.

Leland, Charles Godfrey (1824-1903), an American author, born at Philadelphia. He was admitted to the bar in Philadelphia (1851), but soon devoted all his time to literary work of an editorial and journalistic nature. Gypsy language and history was one of his special studies, and he also obtained a reputation as a German scholar. In 1861 he established the Continental Magazine in Boston. L.'s best-known work is Hans Breitmann's diverting adventures of their hero, told in the patois termed 'Pennsylvania Dutch.' He also is the author of Sunshine in Thought; English Gypsies and Their Language; English Gypsies Song, Authorizathiral Manuel Company Gupsy Songs; Autobiographical Memoirs, etc. See Life by Pennell, 1905.

mours, etc. See Life by Pennell, 1905. Leland, John (c. 1506-52), an English antiquary, bern in Loudon. Taking holy orders, he became chaplain and librarian to Henry VIII. in 1533, and also received the commission of king's antiquary, with power to search for records, manuscripts, and documents of antiquity in scripts, and documents of antiquity in all the religious houses of England. In 1536 he was made canon and pre-

bend of King's College, Oxford, and a prebend of Salisbury. Most of L.'s work was in manuscript at the time of his death, the bulk being deposited by Burton in the Bodleian at Oxford. His most important works are the Itinerary and the Collectanea. See John Bale, Catalogues, 1557.

Leland, Thomas (1722-1785), a classical scholar and historian, born at Dublin. Translated Demosthenes Orations, the first volume appearing in 1756 and the last in 1770. In 1763 he was appointed professor of oratory in Trinity College. He published: History of the Life and Reign of Philip of Macedon; Dissertation on the Principle of Human Eloquence; and History of Ireland.

Leleges, a tribe, according to Greek tradition, who inhabited the islands of the Ægean Sea and the coast of Asia Minor, N. of Ephesus. In the Hiad they are described as a tribe in South-Western Troas, the allies of

the Trojans.
Lelewel, Joachim (1786-1861), a
Polish historian, born at Warsay. He became lecturer of history at Vilna (1814). He retained the chair till 1824, when he was dismissed on the supposition of having taken part in secret revolutionary proceedings. In 1829 he became a prominent leader of the Polish revolution, and on the failure of the uprising fled to France. His writings are extensive and of high value, and his works on Polish between the process of the proce Polish history have been collected and published (1853-76).

Lely, Sir Peter (1617-80), an English painter, born at Soest, Westphalia. Studied under Peter de phalia. Studied under Peter de Grebber at Haarlem, and then came to England in 1641, where he began painting historical subjects and landscapes, soon becoming eminent in his profession and being employed by Charles I. to paint his portrait. At the accession of Charles II., L. was made state painter and knighted. His most celebrated work is a collection of portraits of the ladies of the court of Charles II., now at Hampton Court Palace. His best known his torical pictures are: 'Susannah and the Elders,' and 'Jupiter and Europa.' L.'s portraits are after the style of Vandyck, carefully finished, warm and clear in colouring. Eminent

nerica, be-Staten Is. Dutch navigator, who gave it his name. Width 20 m.

Lemaitre, Antoine Louis Prosper reach actor. Paris, com-In 1823 he made his début at L'Ambigu, Paris, in | introduced to prove another proposithe rôle of Robert Macaire in L'Au-| tion, but otherwise disconnected berge des Adrets, and immediately became famous. Among the most important plays in which he appeared were Trente ans, ou la vie d'un Joueur, Hamlet, Falstaff, Kean, Ruy Blas, Le Vieux Caporal, Le Maître

d'Ecole, etc. Lemaître, Francois Elie Jules (b. 1853), a Frenchpoet and dramatist, born at Vennecy, Loiret. From 1875-79 he was professor of rhetoric From at the Lycée of Havre, and from 1879-81 professor at the Ecole des Lettres, Algers. In 1880 he first Lettres, Algers. In 1880 he first came to the notice of the public with a small volume of verse, entitled Les Médaillons, subsequently followed, in 1882, by La Comédie après Molière, and in 1883 by Petites Orientales. In 1884 he held a professorship at Grenoble, which, however, he soon abandoned, and devoted himself ex-clusively to literary work. In 1895 he was elected a member of the French Academy. Besides the works already mentioned he has published: Les Con-temporains; Impressions de Théâtre, chiefly literary essays; Les Rois, Sérénus, Myrrha, Contes en marge des vieux livres (fiction); and the plays: Revoltée; Les Rois; Le Pardon; Revollée; Les Rois; Le Paraon; L'Ainée; La Massière; Bertrade, etc. Le Mans, see MANS, LE.

Lemberg, the cap. of Galicia, Austria-Hungary, 365 m. E.N.E. of Vienna, in a deep valley and pic-turesque district. The seat of a Roman Catholic Armenica and turesque district. The Roman Catholic, Armer United-Greek archbishop. Armenian, and founded in 1259, and is an important military station. Its principal Its principal manufs. are machinery, matches, candles, woollen and cotton goods, etc., and the trade is largely in the hands of the Jews. Pop. 206,574

(over 50,000 Jews).

Lemercier, Jacques (c. 1585-1660), a French architect and sculptor, born at Pontoise, died at Paris. He went to Rome in 1607, remaining there till 1620, when he returned to France and was patronised by Richelieu, becoming architect to Louis XIII., and being put in charge of the Louvre and the Tuileries. In 1629 he built the Sorbonne and the Palais-Cardinal, and then succeeded Mansard as director of the works of the Vale-de-Grace. In 1653 he built the church of Saint-Roch in Paris, and later the churches of Reuil and Bagnolet.

Longo, a tn. in the principality of Lippe, Germany, 6 m. N. of Detmold, Manufs. meerschaum pipes, leather, linen, etc. Formerly one of the Hanse

term used to describe a proposition Amongst his chief publications are

from the general sequence. The word is not often employed at the present

day. Lemming, a small rodent, belonging, like the short-tailed English field mouse and the water-rat, to the subfamily of voles (Arvi colina), which is part of the family Muride, in the order Rodentia. Its zoological name is Myodes lemmus. It has brownish-yellow fur, a short head, short, partially-concealed ears, and a short tail. In length it is about 5 in., and it has a blunted muzzle, black beady eyes, and dark brown or black spots on its back. Ls. abound in the plateaux above the pine belt in the mountains of Norway and Sweden. They feed on grasses, lichens, and shoots of dwarf birch, and are never carnivorous. Their nests, which are built of straw and lined with hair, are hidden in the grass or under stones, and are inhabited by five young at a time; the breeding is at least biennial. At periods varying from five to twenty years armies of these restless little animals march seawards, causing great destruction in their path, and drawing after them a host of eagles, wolves, foxes, and other predatory beasts. During these extraordinary migrations, which last from one to three years according to the distance to be traversed, they only travel by night. Thousands die by the way, and certain death awaits those who at the journey's end fear-lessly plunge into the open sea.

(Lat. Lemniscate lemniscatus. ribboned), a curve invented by Jakob Bernoulli, occurring in many mathematical problems. It may be defined as the locus moving so that the product of its distances from two fixed points is constant and equal to the square of half the distance between those fixed points. See Brocard, Notes de bibliographie des courbes

aéometriaucs.

Lemnos, or Limnos, an island of the Grecian archipelago, midway between Mt. Athos and the coast of Asia Minor. It is of irregular form and hilly, and presents volcanic formations. It produces grain, oil, wine, fruits, and tobacco, and in former times the celebrated Lemnian earth (q.v.) was exported. It was at one time a possession of Athens. The chief port and town is Kastro on the W. coast. In 1657 it was taken by the Turks. Area 180 sq. m. Pop. about 27,000, principally Greeks.

linen, etc. Formerly one of the Hanse (Le Moine, Sir James Macpherson towns. Pop. 9966. (b. 1825), a Canadian author, was Lemma (Gk. $\lambda \epsilon_{\mu\mu\alpha}$, a thing received knighted in 1897 on account of his or taken for granted), a mathematical literary attainments; born at Quebec.

his L'Ornithologie du Canada, 1862; Les Pecheries du Canada, 1862; Quebec Past and Present, 1876; Picturesque Quebec, 1882; Canadian Heroines, 1887; Legends of St. Lawrence, 1898, and The Annals of the Port of Quebec,

Lemoinne, John Emile (1815-92), a French journalist, born in London. In 1840 he became editor of the Journal des Débats, writing on English and other foreign questions. In 1875 he was elected to the French Academy, and life member of the Senate in 1880. He was a frequent contributor to the Revue des Deux Mondes, and is best known by his Eludes critiques et biographiques. He died in Paris.

Lemon, a valuable fruit produced by Citrus Limonum, a sub-tropical trae on church and its near varieties.

tree or shrub, and its many varieties. L. culture is the main industry in Sicily, but in many other districts with suitable climates the fruit is grown on a large scale, including California and Rhodesia. Like other citrus plants, the L. grows well on greenhouse walls, and the fruit being greenhouse wans, and the rate states ripened on the tree, is greatly superior to imported fruit which has been gathered before the flavour could mature. The L. is distinguished from the citron by its thin rind, and is longer and less knobbed at the tip. The lime (q.v.) is more globular.

Lemon, Mark (1809-70), an author, wrote novels, farces, and melodramas, and was a prolific contributor to many periodicals. He edited the Family Herald and Once a Week, but is best known as one of He the founders of Punch, over the destinies of which he presided from its birth in 1841 until his death, As editor of Punch he was the right man in the right place, and he sur-rounded himself with such valuable supporters as Thackeray, Jerrold, Leech, Keene, and Tenniel.

Lemonade, a beverage obtained by extracting the juice of fresh lemons, mixing with water, and sweetening. It quickly allays thirst, and is useful in febrile and inflammatory complaints, especially when iced. Aerated water flavoured with lime juice, tartaric acid, or essence of lemons is

also called L.

Lemon Sole, or Smear Dab, is the popular name of Pleuronectes microcephalus, a species of flat fish belonging to the teleostean family Pleuro-ncetide. It is found from the Bay of Biscay to the N. coasts of Europe, and is widely consumed, its flesh, however, being inferior in flavour and firmness to that of Solca vulgaris, the

smooth and of a brownish-yellow colour, with light and dark spots.

Le Moyne, Charles Sieur de Lon-gueuil (1626-83), a Canadian explorer, born in Normandy. First served in the French army, and then emi-grated to Canada, where he became interested in colonisation. Lived for a time among the Hurons and obtained from them a concession to rebuild the fort at Niagara, which work he was engaged on when he died. His son Charles (1656-1729) was at the defence of Quebee in 1690. He was made a baron and governor of Montreal, 1700, and commandant-general of Canada, 1711.

Lemoyne, François (1688-1737), a French painter, born at Paris, Studied under Galloche, and in 1711 carried off the Prix de Rome, with his pic-ture, 'Ruth and Boaz.' In 1718 he became an academician. His title to fame rests chiefly on the decoration of the vault of the 'salon d'Hercules' at Versailles, 64 ft. in length, and con-

taining 142 pictures of great merit.
Lemprière, John (c. 1765-1824), an English classical scholar, born in Jersey, Channel Islands. He took orders and became headmaster of schools in Abington and Exeter, and later held two livings in Devon-Best known as the author of shire. the classical dictionary, Bibliotheca Classica, founded on Sabatier's Dictionnaire des Auteurs classiques. Also wrote a Dictionary of

Biography.

Lemur, or Ghost, figures in Roman superstition. The 'Lemures' were supersonton. The wandered about in search of mischief: they were thus distinguished from the 'Manes,' or 'spirits of the dead,' by their wicked intent. The Romans sought to appease them during the festival of the Lemuria, which was held annually on May 9, 11, and 13. The name, so they said, was a corruption of Remuria, which referred to Remus. Romulus' brother, being so called because the purpose of its celebration was the satisfaction of his shade. During the festival no man might marry, and all shrines and temples were closed. Ovid describes in his Fasti the curious rite which the paterfamilias performed. Rising at midnight he traversed his house with bare feet and washen hands, and nine times spat a black bean from his mouth, and with backward glance cried, 'Thus I redeem me and mine.' The belief was that the evil 'lemures' either picked up the beans, or else entered into them. Then the father common sole, a member of the same washed again, beat kettles, and family. The L. S. has both eyes on clanged his brazen vessels, and nine the right side, the dorsal fin comtimes repeated the courteous request, mencing above the eye; its skin is 'Manes exite paterni' (Shades of

our fathers, depart). It was necessary in the de Maintenon, Mme. de la to exorcise these ghosts, as they alarmed men of good, and haunted those of evil conscience. Some have these of evil conscience. Some have held that there were elements of ancestral worship in this rite.

Lena, formerly Pola de Lena, a tn. in the prov. of Oviedo, Spain, 18 m. S. of Oviedo: Pop. (com.) 38,000.

Lena, the largest riv. in Siberia, and one of the principal rivers of Asia.

and one of the principal rivers of Asia. It rises in the Baikal Mts., and enters Arctic Ocean by numerous mouths. Its total course is 2700 m., the whole being in Russian do-minions. Its chief tributaries are the Vitim, Olekma, Aldan, and Vilyu. Total length of navigable waterways 7110 m., nearly 5000 m. utilised by steamers.

Lenau, Nikolaus (1802-50), penname of Nikolaus Niemsch von name of Nikolaus Niemsch von Strehlenau, a Hungarian poet, born at Czatad, Hungary. He first studied law and medicine at Vienna, but was unable to settle down to a profession and began to write verses. His first published poems appeared in 1827, and in 1832 he published a volume of poems dedicated to the Swabian poet, Gustav Schwab. In 1832 he went to America in search of change, but returned to Vienna the next year, out returned to Vienna the next year, and lived alternately in that city and Stuttgart, where he came into close touch with Uhland, Kerner, and Mayer. Besides his Schilftieder, and short lyric effusions, L. wrote Faust, Savonarola, and Die Albigenser. His Sämtliche IVerke were published by A. Grün in 1855. See Lives by Schurz and Frankel.

Lephach, Franz (1836-1904) the

Lenbach, Franz (1836-1904), the chief German portrait painter of the 19th century, born at Schrobenhausen, Upper Bavaria. He became a pupil of Piloty, whom he accompanied to Italy, where he studied the old masters. On his return to Munich, masters. On his return to Munich, he soon recognised that his chief strength lay in portraiture, and at Rome, where he spent many of his winters, he soon became the centre of a brilliant artistic circle. His best-known portraits are those of Bismarck, Motke, Gladstone, Wagner, Strauss, and Liszt. He excelled especially in characterisation, and his conception was always true.

Lencas, see Chontals.

Lenclos, Anne, or Ninon de (1616-

7500.

Lenfant, Jacques (1661-1728), a minister and French writer, born at Baroches. He was ordained to the Protestant church in Heidelberg about the year 1684. Among his many writings, principally on theology, may be mentioned his edition of the N.T. in French, which he annotated and published in collaboration with

Beausobre. Leng, Leng, Sir John (1828-1906), English journalist, born at Hull. 1851 he became editor of the Dundec Advertiser, which he soon raised to a high rank, both as regards local and imperial affairs. In 1870, L. was one of the first Scottish newspaper proprictors to set up an office in Fleet Street in direct telegraphic communication with Dundee, and he was the first to attempt illustrations in a daily paper. In 1858 he founded the People's Journal. In 1877 he started the Evening Telegraph, amalgamated in 1900 with the Evening Post. His publications include: America; Letters from India to Ceylon; Glimpses of English and Sielly: Scottish Banking Reform; Home Rule all Round; Nationalisation, the Dream of the Labour Party, etc.

Lennep, a tn., Rhenish Prussia, on the R. Lennep, 8 m. S.E. of Elberfold. It manufer to the light in the state of the labour party.

feld. It manufs. textile fabrics, iron and steel wares. Pop. 13,125. Lennep, Jacob van (1802-68), a Dutch writer, born at Amsterdam.

He studied law and was called to the bar, but during the time that he was practising as a barrister he was also

strength lay in portraiture, and at Rome, where he spent many of his winters, he soon became the centre of a brilliant artistic circle. His best-known portraits are those of Bismarck, Moltke, Gladstone, Wagner, Strauss, and Liszt. He excelled especially in characterisation, and his conception was always true.

Lencas, see CHONTAIS.
Lenclos, Anne, or Ninon de (1616-1706), a Parisian courtesan, famed equally for her beauty and intellect, born in Paris. She had a succession of lovers, including Saint-Eyrémond, Gaspard de Coligny, Rochemond, Gaspard de Col

the Earl of Angus and Margaret Tudor, Lenormant, François (1837-83), a sister of Henry VIII.; Matthew's French archeologist, born in Paris. eldest son, Henry, married Mary He won the prize in numismatics at Queen of Scots. After the murder of the Académie des Inscriptions with Darnley (1571), Matthew worked it is a Monnaics des the abdication of Monroed in 187 Darnley (1971), Matthew worked 1
the abdication of Mary, and in 157
l was appointed
his grandson being recognised

James VI. of Scotland, he was appointed regent. On his death (1571) ship of archeology at the Bibliothe title passed to James, who conferred it on his uncle, Charles, the
younger brother of Darnley, who
left an only daughter, Lady Arabella 1880-84, and Les Antiquites de la
Stevent In 1580 James conferred Trade 1376 In 1580 James conferred Stewart. the title on his cousin, Esmé Stewart, grandson of the third earl, and in the grandson of the third earl, and in the following year Esmé was created Duke of L. He was succeeded by his son Ludovic, who was created gradens of Versailles, the Trianon, Earl of Richmond (1613), and Earl of Richmond (1613), and Earl of Newcastle, Duke of Richmond (1623) in the English (162

upon Charles II., who bestowed it on his illegitimate son, Charles Lennox (by the Duchess of Portsmouth), who sold the lands to the Marquis of Montrose in 1702. See Scots Pecrage, vol. x., and William Fraser's The Lennox,

1874.

Lennox, Charlotte (née Ramsay) (1720-1804), a British writer, born in New York. She came to London in 1735, and after a brief period on the stage, carned her living by writing. Her chief books are: The Female Quixole, 1752; Life of Harriot Stuart, 1751; and Shakspear Illustrated; or The Novels and Histories on which the plays are founded, 1753-54.

Lennox Hills, t

include the Can blane Hills, and

Stirling. They rise to 1894 ft. in the peak of Earl's Seat.

Lenoxtown, a vil. of Stirlingshire, Scotland, 11 m. N.E. of Glasgow by rail. It has calico-printing, alum and bleach works, and coal mines. Pop. (1911) 2700.

Leno, Dan (1861-1904), the stage name of George Galvin, an English comedian, born at Somers Town. His parents were travelling entertainers, known as Mr. and Mrs. Wilde, and known as Air, and Airs. Wilde, and as a child he was trained as an acrobat and dancer. With his brother he won the world's championship in clog-dancing at Leeds in 1880, and after appearing in pantomime at the Oxford and Surrey Theatres, he was engaged for Drury Lane by Sir Augustus Harris. In 1900 he was transformed to the Parilion Musica Augustus Harris. In 1900 Music transferred to the Pavilion Music before Wood's the Dar

1880-84, and Les Antiquités de la Troade, 1876. _ Le Nôtre, André (1613-1700), a

Charles, the L. dukedom devolved to these he visited Rome and laid out the gardens of the Quirinal and Vatican.

Lens, a tn. of Pas-de-Calais, France, 9 m. N.N.E. of Arras. It possesses a rich coal-field, and is also engaged in sugar-refining and other industries. Pop. 27,800.

Lens, in optics, a portion of a refracting medium bounded by two

curved surfaces, or by one plane surface and one curved surface. Ls. are usually made of glass, their surfaces are usually portions of spheres,

and for most practical purposes have a small thickness in proportion to the radius of curyature. They may be divided into two classes, convex or Ls., and concave or Ls. The former are

the centre than at the are situated between Dumbarton and edges, and may be subdivided as double-convex, with two convex surfaces; plano-convex, with one flat and one convex surface, and convexoconcave, otherwise called converging meniscus. Diverging Ls. may be subdivided into double - concave, subdivided into double concave, plano-concave, and concavo-convex. or diverging meniscus. The action of a L. may be explained by reference to the effect of a prism on transmitted light. When a ray enters a prism it is refracted towards the base, and the greater the angle of the prism, the greater is the amount of that deviation. Now a convex L. may be considered as made up of portions of prisms whose angles become greater the farther they are away from the centre. The result is that parallel rays falling upon the L. on one side are made to converge towards the centre and ultimately meet at a point which is called the focus of the L. Thus it is that a burning-glass concentrates the

lantern glass. For the purpose of finding the focus of a L. of given curvature, the paths of the rays may be represented by straight lines. A ray which travels along the axis of the L. is not deviated, because it meets the surface at right angles. There is one point on the axis such that if the path of a ray within the L. pass through that point, the ray proceeding from the L. is parallel to the incident ray. That point is called the optical centre of the L., and the incident and emergent rays are parallel, because the amount of deviation towards the centre is exactly equal to the amount of deviation away from the centre on emerging from the L. When parallel rays fall upon one surface of a convex L., they converge to a point on the axis which is called the principal focus. The distance of the principal focus from the optical centre is called the focal length. In the case of a concave L., rays which are parallel to the axis are made to diverge, but if their directions are produced backwards, they meet at a point on the axis. This point is called the virtual focus, since the rays do not actually pass through it, and the focal length is measured from the virtual focus to the optical centre, and is called negative. If rays pro-ceed from a point on the axis to the surface of a convex L., their direction is altered so that they either converge to another point on the axis, or appear to diverge from another point. That point is called a conjugate focus, and in the former case it is real, in the latter it is virtual. It is obvious that conjugate foci are interchangeable. The effect of looking through a L. therefore depends upon the distance of the eye and of the observed object from the L. If the eye is in front of sanity overtook the unfortunate n

sider the rays to be originally parallel. On the other hand, if the rays are diverging as they meet the eye, a certain area of the retina receives the rays from a small area in front of the L., so that the object appears magnified. The simplest form of magnifying glass is a convex L., but it must be placed at a distance from the object less than its focal length.

Lent (O.E. lenclen, spring; M.E. lenten, lente), in the Christian Church, the period of fasting before Easter.

rays of the sun upon a small area; and on the other hand, that rays proceeding from a small area, such as the flame in a lantern, are made to proceed approximately parallel when they are transmitted through the tentury the period had extended to about forty days. Hence in lantern glass. For the purpose of finding the focus of a L. of given treatment of the flame of a L. of given treatment of the form the Sunday makes the second of the form the Sunday makes and the second of the form the Sunday makes and the second of the form the Sunday makes are the second of the form the Sunday makes are the second of the form the Sunday makes are the second of the form the Sunday makes are the second of the form the Sunday makes are the second of t from the Sunday which was the for-tieth day before Easter. In the 8th or 9th century, it was determined that the fast should begin on Ash Wednes-day, between which and Easter Sunday are forty days, excluding Sun-days, on which fast is not observed. The fourth Sunday in L. used to be known as 'Mothering Sunday,' for on that day young servant maids were allowed a holiday to visit their mothers, and usually took with them a rich simnel cake. The fifth week is called Passion Week; the sixth, beginning with Palm Sunday, is Holy Week.

Lentils, the well-known seeds of a small branching plant with pale blue flowers (Ervum lens). Their shape has given the name to the glass lens. There are numerous varieties and all are of high food value. The plant is hardy in Great Britain, but is rarely cultivated. In all southern parts of Europe, and in Egypt and India, the crop is an important one.

Lentini, a tn. in the prov. of Syracuse, Sicily, 1½ m. S.E. of Lake Lentini. Its inhabitants are engaged in the manufacture of earthenware Pop. 17,200.
Lenz, Jakob Michael Reinhold (17.1)
Lenz, Jakob Michael Reinhold (17.1)

92), a German poet, is a typical resentative of the 'Sturm-und-Dr period. His earliest efforts at a. position were sacred songs hertheology was a vil Strassbu: of Salzm the frien sionate Lande were mispired by Frieds,

Brion, whom Goethe also loved. is romantic comedies D 1774; and Dic Soldaten show a lamentable de-

restraint. Leo (The Lion), one of the twelve zodiacal constellations of which it is the fifth 'sign,' the sun entering it on about July 21. It is surrounded by Ursa Major, Leo Minor, Cencer, Hydra, Sextans, Virgo, and Coma Berenices. The constellation can be easily found by drawing a line through the Pole Star, and the lowest (y) of the four in the Great Bear. This line inter-sects L. at the bright star Deneb (8 Leonis). The two brightest objects in the constellation are Regulus (a In the time of Irenœus, a rigid fast Leonis) (first magnitude) in the handle

Leo, the name of thirteen popes:

Leo I. (440-461), probably a
Roman by birth, is first definitely heard of as a deacon in 429 but possessing great influence, and while in Gaul on a diplomatic mission was chosen to succeed Sixtus III. was foremost in checking the heresies of Manicheism, Priscillianists, and historianism, and in establishing the prime authority of the Bishop of Rome and the authority of the law of the Bishop of Rome, and the authority of the law of its apostolic see. He formulated the doctrine of the union of the human and divino persons in one Jesus Christ, in a letter, intended for the 'robber' synod of Ephesus but adopted at the council of Chalcedon (451). Leo turned back the Huns under Attila (452) and saved the plundering of the ancient basilicas of Rome from the Vandals under Genserie in 455. He was succeeded by Hilarius. Ciallian

see of Rome over that of Ravenna. He was succeeded by Benedict II.

Leo III. (795-816), a Roman by birth, succeeded Adrian I., sent the keys of Rome to Charlemagne in acknowledgment of his power. He was pursued by attacks of violence, overrame charges by the nephews of his Cadecessor, and was acquitted by a rlemigne, to whom he was 175 rely subordinate. He died after The per outbreak against him after plane. plays . magne's death.

Lenn IX. (1049-54), an Alsatian; include e was Bruno, and he belonged blane Hole family related to the Em-are situbnrad. In 1026 he was Bishop Stirling and was selected to succeed

peak cus II. at Worms, a choice con-Leid in Rome, whither he journeyed Scol pilgrim with Hildebrand, after-rail ds Gregory VII. In the synod of \$549 he renewed the rule of celibacy In the clergy which, with his suppression of simony, marked his reforming zeal. He held many synods and travelled much. He was crushingly defeated by the Normans near Civibella in 1053, and was a captive at Benevento. He was succeeded by

Victor II.

Leo X. (1513-21) was Giovanni, son of Lorenzo de' Medici, the Magnificent, born at Florence in 1475. Edu-Leo X. (1513-21) was Giovanni, son ously for social and educational reof Lorenzo de' Medici, the Magnifiform, restoring churches, etc. In
cent, born at Florence in 1475. Edutated by the first scholars of the new Pius IX. He strenuously opposed
learning, he was made a cardinal the loss of the temporal power and
when only fourteen, though only the other results of the unification of
fully admitted in 1192. He retired to Italy, so far as they affected the
Florence at the election of Alexpontificate. In 1877 he became Carander VI. till the expulsion of the dinal Camerlengo, and was elected
Medici from Florence. On the restorapope in 1878 by a large majority of

of the well-known 'sickle,' and the tion, he, as head of the family, blue star Deneb (magnitude 2.2). governed the state till his election to the papacy on the death of Julian The first part of his pontificate was taken up t

Spain, and for an all Venice, and for restoring peace to Europe in view of a crusade against the threatening advance of the Turks. The grants of indulgences forced on the revolt against the abuses of the Church which culminated in the Reformation; Leo's failure before the spread of the revolt in Germany and the N., was mainly due to his absorption in the pressing forward of the temporal claims of the papacy in Italy, and his diplomatic intrigues for these ends which were subservient to his lifelong policy of increasing the power of his family, the Medici. He died suddenly after the news of the success of his plans. He was a great patron of the arts and literature, and during his pontificate Rome was the centre of learning and art.

Leo XI. (
Medici, only

(1605), Alessandro de' reigned a month;

succeeded by Paul V

Leo XII. (1823-29), born near Spoleto in 1760; was secretary to Pius VI; engaged in diplomatic missions in Europe and with Napoleon; cardinal-priest in 1816, and cardinal-vicar, 1820. He was elected pope on the death of Plus VII., being expected to live a very short time. He was a distinct reactionary, suppressing all forms of political movement and societies, and establishing an elaborate system of spics. He was succeeded by Pius VIII.

Leo XIII. (1878-1903), Givacchino Pecci, born at Carpineto in 1810, of a Sienese family, his father having served in the Napoleonic armies; educated by the priests at Viterbo and at Rome; entered the Accademia dei Nobili Ecclesiastie in 1832; ordained priest in 1837. He received appointments at Benevento and Perugia, in which he displayed ability and sympathy with social reform. He was made bishop in 1843, and was engaged in diplomacy in Brussels till 1846, when he was appointed Archbishop of Perugia. Here he remained working assiduously for social and educational revotes, possibly in the expectation of province of Ravenna separated from a short papacy in view of his age. He the empire. See Gibbon's Decline reorganised the curia on strictly and Fall (ed. by Bury), 1896. economic lines, enforced a stricter Leo, Leonardo (1694–1744), an theological training in accordance with the doctrines of St. Thomas Atorni Patris, threw open the Vatican tory. His encyclical Rerum

(1891), dealing with the cor the industrial classes, was c to be socialistic in tendency, and twenty years later was reversed in his directions against the Christian democratic movement in Italy. these matters and in questions of the authority of states, of liberty, etc., his encyclicals consistently propounded the necessity of the direction in every sphere of life by the Church. He reproved the Plan of Campaign movement in Ireland without success, and had to deal with the question of 'Americanism' in the U.S. His com-

mission to inquire into the validity of Anglican orders led to a definite and final condemnation from the and nnal condemnation from the Roman Catholic point of view in 1896. Faced at his entry to the papacy with complete isolation from the European Powers, Lee worked to establish friendly relations with all, except the crown of Italy, which made him, as Plus IX., a 'prisoner of the Vatican.' His plan to bring the French Catholics to support the the French Catholics to support the republic can hardly be said to have succeeded. He died a few months after the celebration of his jubilee.

Leo I., Flavius (457-474), Emperor of Constantinople, born in 400, in Thrace, and was crowned by Anatolius on the death of Emperor Marcianus. He adopted stern measures against the Eutychians, and defeated the Huns in Dacia. While on an expedition to recover part of Africa, his fleet was destroyed by the Vandals. Towards the end of his reign he suppressed a rising of Goths, and, on his deathbed, left his crown to his

grandson, Leo. Leo III., the Isaurian (717-740), Emperor of the East, was born about 680 in the Syrian province of Commagene. In 717, refusing to acknowledge the usurper Theodosius III., he was elected emperor by the army, and during the first year of his reign defeated the Saracens who had laid siege to Constantinople. He passed legislative reforms on religious mat-ters, and by issuing edicts against the image-worshippers gave rise to

Leo, Leonardo (1694-1744), an Italian musical composer, born near Brindisi. While studying at Naples. Aquinas, especially in his encyclical his sacred drama, L'Infedeltà abbattuta, was performed in 1712 by his library and archives to scholars, and fellow students. Among his works encouraged the study of church his-are: Pisistrato (an opera), 1712; La tory. His encyclical Rerum 1723; and Amor vuol Comic operas:

1d L'Olimpiade, 1737. Leo Africanus (Alhassan Ibn Mohammed Alwazzan), a Berber traveller of the 15th century. He travelled extensively in Northern and Central Africa and Asia Minor, and, while returning from Egypt, was captured at sea by pirates and taken to Rome, where he was converted to Christianity. His account of his journeys, written in Italian, was published in

1550 by Ramusio. Leo Allatius, see Allatius, Leo. Leoben, a tn. in the prov. of Styria, Austria, 26 m. N.W. of Graz, with iron mines close by. Here in 1797 was signed a peace between France and Austria. Pop. 11,504.

and Austria. Pop. 11,504.
Leobsohütz, a tn. in the prov. of Silesia, Prussia, on the Zinna. It manufs. hosiery, glass, and machinery. Pop. 13,083.
Leochares (fl. 350 B.C.), an eminent Greek sculptor. He was a pupil of Scopas, with whom he worked on the Mausoleum. With Lysippus he executed a group in bronze representing Alexander at a lion hunt. Ho also made busts of Alexander, statues of Zous. Ares. and of the family of of Zeus, Ares, and of the family of Philip of Macedon. All his works are lost, but the statuette in the Vatican of 'Ganymedo carried away by an Eagle ' is probably a copy of his work on this subject.

Leo Hebræus, first son of Abarbanal (q.v.).

Leominster: 1. A tn. in the co. of Hereford, England, 12 m. Hereford, on the Lugg. It N. It trades chiefly in cider and hops. This town

chiefly in cider and hops. This town dates back to very early times. Pop. (1911) 5737. 2. A tn. in Worcester co., Massachusetts, U.S.A., 40 m. W.N.W. of Boston. Its chief manufs. are combs, pianos, and papers. Pop. (1910) 17,580.

Leon: I. A prov. of North-Western Spain. The Cantabrian Mts. hem it in to N. and W., and in this direction the province itself is highland, whilst the plains of the S. and E. are part of the Castillan plateau. The Montañas de Leon separate the basins the image-worshippers gave rise to tains de leon separate the basins the great iconoclast controversy. He of the Minho and the Douro, and the transferred Southern Italy, Greece, and Macedonia from the papall Vierzo, in which vines, corn, and diocese to the patriarchate of Coutral fruit grow in plenty. There is some stantinople, with the result that the mining of coal and iron, but agricultañas de Leon separate the basins

source of wealth. Area 5936 sq. m. Pop. 394,119. 2. The cap. of the prov. of Leon, Spain. It is perched on a hill (2631 ft.), and is made up of two distinct quarters, the old and ecclesi-

and manufactories of machinery, etc. Pop. 17,000. 3. Formerly the cap. of Nicaragua, Central America, ov and N.W. of Managua, the present capital. Tanning and the manuf. of textile goods and boots and shoes are the staple industries. The ornate Renaissance cathedral (completed in 1774) and the many handsome public buildings lend dignity to the town. Pop. 63,000. 4. A thriving industrial centre, 30 m. W. by N. of Guanajuato, in the province of Guana juato, Mexico. Pop. 65,000.

Leon, Fray Louis de, sec Ponce DE LEON.

Leonardo da Vinci (1452-1519), an Italian painter, sculptor, engineer, and architect, born at Vinci, near Empoli. His father was Ser Piero da Vinci, a Florentine lawyer, and his mother (Catarina) was of humble birth and unmarried. The child was brought up in his father's household. and from his earliest years showed Among the first pursuits this genius set his hands to were music, modelling, and drawing. His father placed him under the tuition of Andrea del Verrocchio, and in his studio L. worked with Sandro Botticelli and Pietro Perugino and other less famous men, such as Lorenzo di Credi. If tradition is to be believed he was soon able to teach his master. Verrocchio allowed his pupil, then about eighteen, to paint a kneeling angel in the picture of 'Christ's Baptism,' and the result was such that Verrocchio knew that he could teach L. nothing more. The picture is now in the Academy at Florence. In 1472 he was enrolled in the painters' guild at Somewhere about 1477 Lorenzo the Magnificent appears to have taken him into special favour, and under his protection L. worked During independently until 1483. this time he was filled with projects of all kinds of architecture, hydraulics, also mechanics, and engineering. studying and observing every branch of science. His art was not the reviving of lost glories, it was the finding of fresh revelations in the living and of often obscure existing things. Thus his picture on a wooden shield. when he was quite young, cost him the minute study of insects and rep-tiles from which he created a dragon which terrified and delighted all who

ture and sheep-rearing are the chief beheld it. So later his picture of the source of wealth. Area 5936 sq. m. 'Medusa' was exceedingly terrible, yet very beautiful, depicting loath-some things blended with a great and tragic loveliness. From Florence he went to Milan, about 1483, and here, under the protection of Ludovico various works. monument to

famous picture of the 'Last Supper,' in the refectory of the convenient church of Sta Maria delle Grazie. This masterpiece has been the victim of many experiments; the original work suffered from the damp wall on which it was painted, the picture became blistered and mildewed, and after many years Cavaliere Cavenaghi has restored to us as far as is possible the wonderful gift to posterity left by L. From Milan he went to Venice, and while commencing various pictures, spent half his time in gigantic plans of engineering work. In 1502 he travelled as chief engineer to Cæsar Borgia, mapping out the country and planning and arranging canals, harbours, and various restorations, but in 1503 he was back again in Florence. His next work was the decoration of the council hall of the Signory; Michael Angelo was also commissioned to produce a battle scene on another wall of the same apartment. His cartoon was finished in two years and was exhibited with that of Michael Angelo. The violent action and extraordinary vitality of both these great works moved the whole of Florence to passionate admiration. Unfortunately L.'s work was destroyed by an experiment of his own. Raphael, then only nineteen, came to watch these two at work. The portrait of Madonna Lisa, the wife of Zanobi del Giocondo, was finished in 1504; that mysterious, smiling picture perha of rare TC+ ness, Ι. 'len florins,

untraced.

In 1506 L. returned to Milan, and later accompanied Francis I. back to France. The last two and a half years of his life were spent at the Castle of Cloux, near Amboise, which Castle of Cloux, near Amboise, which had been presented to him. He died on May 2. Only a few of his works have survived, so many were begun and never finished. Among his surviving works are the two pictures of 'Our Lady of the Rocks' in the Louvre and the National Gallery, the latter probably helped out by his pupil Ambrogio; 'St. Anne' and

uvre, from

stolen in

remained

'John the Baptist, now in the All and several studies and drawings at Christ Church, Oxford, Windsor, and 'John the Baptist,' now in the Louvre, elsewhere. A wax bust of 'Flora' was discovered and attributed to L. in 1909 and bought as such by the Kaiser Friedrich Museum in Berlin. It is generally assumed that it is by R. Cockle Lucas, and dates from 1846. See Vasari's Lives; Edward Macurdy. Leonardo da Vinci, in Bell's Great Masters, 1907; Waldemar von Seidlitz, Leonardo da Vinci, 1909; see also Pater's article on Leonardo da Vinci in The Renaissance.

Leonardo of Pisa (Leonardus Fibonacci, or Pisanus), an Italian mathematician who flourished in the 13th His Liber Abaci attracted the attention of the Emperor Frederick II., to whose court he was admitted. His other works are Dc practica geometriæ, 1220; Liber quad-

ratorum, 1225; and Flos.

Leoncavallo, Ruggiero (b. 1858), a musical composer, born at Naples. His best known work is his opera Pagliacci, 1892, his other works being Chatterton, and La Bohême.

Leonessa, a tn. in the prov. Aquila, Italy, on the Corno. I Pop.

8000.

Leonforte, a tn. in the prov. of Catania, Sicily, 45 m. N.W. of the town of Catania. It trades in cereals,

oil, and wine. Pop. 16,000.
Leonidas (c. 489-480 B.C.), King of Sparta, in succession to his half-brother Cleomenes. In 480 he brother Cleonenes. In 480 ne marched with his troops against the invading army of Xerxes, King of Persia, and posted his men, numbering 5300, by the narrow pass of Thermopyle. According to the story, a Greek, Ephialtes, turned traitor and showed the Persians a track to the rear of the Spartan army. Leonidas was overcome and fell in the fight. his head being afterwards cut off, and his body crucified.
Leonid Meteors, see METEORS.

Leonine Verses, irregular forms of verse in which the two syllables of the foot immediately preceding the crefoot immediately preceding the cessure are made to rhyme with the two final syllables of the line. Examples may be found in Ovid and other Roman poots; e.g. 'Diluitur posito senor hora mero' (Heroides, xix., line 14), but they became popular in the middle ages, through the influence of the minstells who in the Latin verses the minstrels, who in the Latin verses sacrificed quantity to accentuation. This form has been used in several English poems, and with notable success in Shelley's Cloud—' I am the daughter of the earth and water. Leonnatus, a Macedonian, served in i

the bodyguard of King Philip, and afterwards became a distinguished

Great, Philip's son and successor. Alexander, remembering how two years previously Leonnatus Peucestes had saved his life in battle, gave the former a golden crown at Susa in 325 B.C. On his master's death (323) Leonnatus became satrap of Lower Phrygia. He died fighting whilst on his way to Antipater, his friend, who was shut up in Lamia, Thessaly.

Leontini, a tn., Sicily, see LENTINI. Leontius (fl. 6th century), a theological writer who was born at Byzantium, and became a monk of the monastery of St. Saba, Jerusalem. He wrote Contra Nestorianos, Contra Severum, and other polemical treatises. See Life by J. P. Junglas (1908).

Leontodon Taraxacum (Dandelion), the common composite flower. The leaves when well grown and blanched make a good salad in the winter and

early spring.

Leontopodium (Edelweiss, or Lion's Foot), the popular white or grey leaved herbaceous perennial yellow flowers. It is valued chiefly because of its Swiss associations. It is quite hardy and easily grown from seed, but needs protection winter rains.

Leopard (Felis pardus), a fierce bloodthirsty carnivore found through. out the African continent and S. Asia, though its numbers are rapidly diminishing. Its colour is pale fawn to rufus buff, and the coat is covered with large rosette-shaped spots. It varies in length from 31 to 41 ft., and is smaller than the lion or tiger, to which it is closely allied, while it differs from them in climbing trees. The Black L. of Jaya was formerly regarded as a separate species, but is now agreed to be a case of melanism. The L. seems to kill for the love of slaughter, and often attacks women and children.

Leopardi, Giacomo, Count (1798-37), an Italian poet, born at Recanati, of a poor but noble family. He devoted his early years to an unaided study of the classics, with remarkable success. Dissatisfied with his home life, he went to Rome in 1822, hoping to find a more congenial environment, but he suffered an intense disappointment; and in spite of the friendship formed there with Bussen and Niebuhr, he returned in the following year to Recanati. Here he remained for ten years, except for short holidays at Florence, Pisa, Milan, and Bologna; at the last-named town his brilliant classical scholarship earned for him a commission to edit Cicero and Petrarch (1825). The last four years of his life (1833-37) were passed at Naples. L. general in the army of Alexander the presents a most fascinating study in

psychology and temperament; he is a life in various ways to Heine and hitz with Prussia for the restoration d'Annunzio. A sensitive soul, capor of Louis XVI. of France. able of idealism, but embittered by disillusionment and a martyr to ill-health, loneliness, and privation, he stands out as the poet of despair; the growing pessimism of his mind is to be clearly traced in his works. His despondency finds its most poetic expression in his Bruto Minore, 1824; in 1827 appeared his Operette Morali, for the most part a series of imaginary dialogues, which have brought him the same high degree of recognition as a master of prose that his *Idilli* and Canconi have brought him as a poet; whilst his Epistolario in particular is one of the most pathetically beautiful works ever penned. As a masterly genus of literary expression he stands in the front rank. The best The best Italian edition of his works is Ranieri's (6 vols.), Florence, 1845. The chief English translations are: (prose (prose Maxdialogues) Edwardes (1882), Maxwell (1905), and Thomson (1905); and (poems) Townsend (1888), Cliffe (1903), and Martin (1904). See also the excellent articles by Dr. Garnett (Ency. Brit., 1911; and Hist. Ital. Lit., 1898), and by Mr. A. H. Cloriston (Quarterly Review, Jan. 1913). Leopard's-Bane, see ARNICA.

Leopard s-Bane, see Arnica.
Leopold, Lake, see Rikwa, Lake.
Leopold I. (1658-1705), Holy
Roman emperor, son of Ferdinand
III., born in 1640, and became king
of Hungary (1655), and king of Bohemia (1656). During his long reign hemia (1656). During his long reign he was engaged in many wars—with Sweden (1660); with the Turks, who, being defeated by Montecucculi at St. Gothard (1664), agreed to the Treaty of Vasvar (1664); with the Protestants of Hungary, whom he suppressed with the aid of John Sobleski, King of Poland, and defeated at Mohacz (1687) and Zenta (1697). He was engaged in three wars with Louis XIV. of France, and towith Louis XIV. of France, and towards ' ., on the (1700), death claime for his second son, the Archduke Charles, thus beginning the war of the Spanish

Leopold II. (1790-92), Holy Roman emperor, son of Francis I. and Maria Theresa, born in 1747, and became grand-duke of Tuscany in 1765. He was chosen emperor in 1790, on succeeding to the Austrian hereditary is brother,

Succession. See Life by Baumstark

(1873).

) re-estabto make but was

Leopold I., George Christian Fredeof the Belgians. Duke of Saxeincle to Queen ecame cavalry-

general under the Russian emperor. Alexander; fought bravely in the battles of Leipzig and Lützen (1814). afterwards accompanied and allied sovereigns to Paris. The death of his first wife, Charlotte, daughter of George IV., and heir-presumptive to the English crown, after one year of married life, was a great disappointment to him (1817). In 1831 he became king of Belgium, which had just been severed from Holland, having already declined the sovereign power of Greece. His wise and paternal rule soon won him the respect and esteem of his adopted people, and the little kingdom enjoyed both peace and

Leopold II., Louis Philippe Mario Victor (1835-1909), King of the Belgians, was the son of Leopold I. From 1846-65, the year of his accession, he served in the army. In 1853 he married Marie Henriette (d. 1902), daughter of the Archduke Joseph of Austria. Before his father's death he travelled a great deal in the East, and in Northern Africa. As a king he will be remembered for the lion's part he played in the events which led up to the annexation of the Congo Free State in 1908. Feeling the need of an overseas' expansion for his little State in 1908. Feeling the need of an overseas' expansion for his little country, he formed the Association Internationale Africaine (1876), and proceeded to exploit the almost unexplored regions of the Congo. The commission of inquiry (1904) confirmed the sinister rumours of the tortune and haphenus treatment of the ture and barbarous treatment of the natives.

Leopold II., a lake of Central Africa in the administrative dist. of that name in Belgian Congo. Length

about 75 m.; greatest width, 30 m. Leopold, Karl Gustaf (1756-1829), a Swedish poet, born at Stockholm. In 1786 he was made scretary to Gustavus III. and collaborated with him in his works. He afterwards be-came a member of the Swedish Academy. His tragedics, among which may be mentioned Odin, 182: and Virginic, 1822, were valued highly by his contemporaries, and his poems are still looked upon as beautiful

Leopoldina Railway. This company was formed in 1897, and took over several railways in Brazil, forming the affairs them all into one company to . 'his sister, worked under one management. The Marie Antoinette, was in dauger. In length of line at present belonging to

this railway is 1651 m. The offices of the company are in Lombard Street, London, E.C

Leopoldshall, a vil. in the duchy of Anhalt, Germany. It has salt works, and manufs, chemicals. Pop. 6588.

Leopoldville, a trading station in Belgian Congo, W. Africa. It stands on the l. b. of the Congo, near Stanley Pool, and is the cap. of Stanley Pool district. This town, which was founded by Stanley in 1882, is the chief means of communication with Upper Congo, and is connected by rail with Matadi.

Leosthenes, an Athenian general, who was commander of the Greeks in the Lamian War, 323 and 322 B.C. He was killed in a siege before Lamia, after having conquered Antipater.

Leotychides (491-469 B.C.), King of Sparta. In 479 B.C., he was com-mander of the Greek fleet and distinguished himself as victor at the

battle of Mycale.

Leovigild, or Löwenheld (d. 586), King of the Visigoths in Spain. He was successful in defeating the Byzantines who dwelt in Andalusia, and was a staunch supporter of Arianism. a doctrine which he maintained till his death. He was also ardent in his persecution of Roman Catholics.

BASTIEN - LEPAGE, Lepage, See

JULES.

Lepanto, the name of a famous naval battle, fought on Oct. 7, 1571, off the town of Lepanto (Naupaktos)
in the Gulf of Corinth between a the triumvir, proved a grasping
Turkish fleet of 273 galleyr in S1 B.C. At first he Parkin free of 210 galacy.

Pasha, with the Bey of 1

and the Dey of Algiers, at fleet of 200 galleys, and some heavy rescind the Sullan constitution durand, as it proved, useless galleasses. Ing his consulate of 78. He opposed the burial of Sulla in the Campus Technology of Austria representing Spatial Conference on the burial of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Sulla in the Campus Conference on the sullant of Su

and Naples also sent a force com- of Pompey and Catulus, the senatorial manded by the Spaniard, Santa Cruz. leaders. Pope Pius V. had instigated the league

blow to the Moslem sea power; the Algerian contingent alone escaping, owing to bad tactics on the part of the Genoese; the Turks are said to have lost 20,000 men, including their principal leaders. The allies lost 8000 Barberigo. Cervantes lost an

speak, known as Rong, and than those of any other race.

Lepidolite is mica of a lilac colour, sometimes violet, found in masses made up of scales containing lithia.

Lepidoptera, the scale winged order of insects, comprising butterflies and moths. It is the scales which give the usually gay colours to the four wines of the perfect insect. L. have a wellmarked metamorphosis through the are eas other insects, and some of the wingless females may be confused. The perfect insect has usually a long spiral proboscis or tongue by which honey may be ex-tracted from flowers. The larva or caterpillar has biting jaws which the perfect insect lacks, and usually casts its skin several times before pupation. The chrysalis stage is almost or quite inert, and in many cases is passed in a cocoon.

Lepidosiren, a genus of dipnoid

fishes. See Dipnoi.

Lepidus, the name of the famous Roman patrician clan of the Æmilii. Marcus Æmilius Lepidus, sent as ambassador to Ptolemy, King of Egypt, in 201 B.c. Consul in 187 B.c., he was pontifex maximus, and six

times princeps senatus. Marcus Æmilius Lepidus, consul in 137 B.C., was praised by Cicero His conduct for his oratory.

the Numantine war in Spain was a fiasco.

cily in 81 B.C. At first he Sulla, but having veered

is colleague, to which his gave rise, eventually led r. In 77 he suffered defeat npus Martius at the hands

Marcus Emilius Lepidus, a useful tool to Casar, because of his untold It was he who proposed Cæsar's dictatorship, and in 46 B.C. was rewarded for his services by being made colleague to the dictator in his consulate, and also his magister cquitum. In the civil war which followed Cresar's murder (44), he joined forces with Antony, and was Lepchas, a race of people who in- other triumvir fought the nemies habit principally Sikkim and posts alread I arides a left idle in Rome. of Tibet. The language which speak, known as Bore allowed to join him and Octavian in

3 and Spain, his customs are closer to the original provinces. The young Octavian inhabitants of this part of the country finally reduced him to impotence in Sicily (36). Here his undignified

13 B.C

Le Play, Pierre Guillaume Frédéric (1806-82), a French engineer and economist, was a native of La Rivière Saint Sauveur (Calvados). After other appointments he became professor to the School of Mines in Paris, and in 1855 received a commission from Napoleon III. to organise the exhibition of that year and afterwards the one of 1867. He published: La one of 1867. He published: La Réforme Sociale en France, 1864; L'Organisation du Travail, 1870; La Constitution essentielle de l'Humanité,

1881: and La Réforme Sociale, 1881. Lepontine Alps, a part of the Alpine of mountains, situated between the Simplon and Splügen They include also the Adula group close to the sources of the Upper Rhine. See ALPS—I. Western.

Leporidæ, the hare family, belong to the Duplicidentata, a sub-order of Rodentia, distinguished by the presence of incisors at birth. The gonus Lepus contains the hares and rabbits (q.v.).

Le Portel, a scaport in the dept. of Pas-de-Calais, France, 2 m. S.S.W. of Boulogne. Pop. 6400.

Leprosy, an endemic, chronic, infectious disease, associated with the

presence of a micro-organism, bacillus time immemorial, and was common in Britain in the middle ages. Hospitals for the shelter of leners established under the name of houses, from St. Lazarus, the pa-saint of lepers. Towards the end c 15th century the disease pract disappeared in England, and it is now unheard of in this country, although a case was reported in Shetland as late as the 19th century. In other European countries, notably Norway, Turkey, and Spain, the disease is still in existence, although, with the exception of Spain, amarked diminution has been noted. It is prevalent also along the coasts of Africa, throughout Asia, in Australia, Hawaii, S. America, and in certain parts of N. The reason for its sudden disappearance from some countries and its no less sudden development in others is not understood. No specific cure appears to have been found, although various preparations have caused improvement in certain cases. Two forms of L. are known, a tubercular and an anæsthetic form. In the former, papules are formed, which later develop into nodules; these

public life ends, but he lived on till ment. There is first of all a constitutional derangement accompanied by hyperæsthesia. Dry eruptions are formed on the skin, and certain nervous changes take place, develop-ing into insensibility of the peripheral nerves over large areas. Increasing degeneration of the nerves paralysis takes place, while trophic lesions occur, resulting in the loss of fingers, toes, etc. Recovery some-times takes place, but the disease usually runs a chronic course, and the patient may die from any disease to which his weakened condition makes him liable.

makes him hause.
Lepsius, Karl Richard (1810-84), a
German Egyptologist, born at Naumburg-am-Saale. In 1834 he wrote his
first book, Die Paliographie als Mittel der Sprachforschung.
Between 1834 and 1842 he travelled in England, Italy, Holland, and Germany, collecting materials for his dissertations of Egyptian art, and studying the ancient Etruscan and Oscan languages. During these years he wrote Lettre & M. Rosellini sur l'Alphabet Hiéroglyphique and Inscriptiones Umbrica et Osca. He expedition conducted a scientific (1842-45) to Egypt, and published the result of his researches in Denk-

of small, hardy in gardens for carpet bedding and for covering dry banks. They produce yellow blooms in June and July.

Leptis: 1. Leptis Magna (modern Lebda), a scappert in. on the N. coast of Africa, 60 m. S.E. of Tripoli, once a Phænician colony. 2. Leptis Minor, a tn., now ruined, on the E. coast of Tunis, Africa.

Leptospermum, an Australian genus of half-hardy shrubs, with small leathery, dotted leaves, in some cases purplish in tint, and white or purplish red hawthorn-like flowers. They prefer a sandy peat. The leaves of L. lanigerum, a large tree, have been

used for making tea.

Lepus (the Hare), an ancient constellation supposed to represent a hare in the act of running from Orion's dog. It is situated directly under Orion.

later develop into nodules; these ultimately ulcerate, and the patient falls into an extremely weakened state and is likely to fall a victim to any intercurrent disease, especially dominates Mont Corneille (433 ft.), tuberculosis. The anæsthetic form is less severe and slower in its develop-

manufactured. Pop. 21,600.

Le Queux, William (b. 1864), a novelist, born in London. He has travelled much, and has a fine collection of mediæval manuscripts and other inmedieval manuscripts and other in-teresting articles. Among his books are Guilly Bonds, 1891; If Sinners Entice Thee, 1897; Secrets of Monte Carlo, 1899; Wiles of the Wicked, 1900; Her Majesty's Minister, 1901; Secrets of the Foreign Office, 1903; The Invasion of 1910; Spies of the Kaiser, 1909; The House of Whispers, 1909; Treasure of Israel, 1910; Hushed Up, 1910; Fatal Fingers, 1912; Without Trace, 1912; The

Death Doctor, 1912. Lercara Friddi, a tn. with important sulphur deposits in the prov. of, and 28 m. S.S.E. of the city of, Palermo, Sicily. Pop. (com.) 13,500.

Lerici, a small scaport, 12 m. E.S.E. of Spezia, on the Gulf of Spezia in Liguria, Italy. Close by are smelting works for lead ore. Pop.

(com.) 9000.

Lerida: 1. A prov. of N. Spain, watered by the Ebro and its tribs. Canals have rendered the southern Llaños de Urgel comparatively fertile, but agriculture is not very profitable, and industries are undereloped. Wine, wool, and cattle are exported. Area 4690 sq. m. Pop. 280,715. 2. The cap. of the above province. It is on the Segre, 55 m. N. of Tortosa. There are two cathedrals. Pop. 21,500.

Pop. 21,500.
Lerins, Hes de, a group of French islands, 2½ m. S. of Cannes in the Mediterranean Sea. Marguerite and St. Honorat are the largest.
Lerma: 1. A tn. of Mexico state, Mexico, a few miles E. of Toluca. Pop. 7200. 2. A riv. of S. Mexico, rising 18 m. W. of Mexico city and flowing into W. Lake Chapala, emerging as the Rio Grande de Santiago.

Santiago.

Lermontov, Mikhail Yurevich (1814-41), a Russian poet and novelist, born at Moscow; afterwards became an officer in the Guards. Czar Nicholas transferred him to the Caucasian army, as he was indignant with the tone of L.'s poem on the death of tone of L.'s poem on the death of Pushkin. But the wild life of the mountainous Caucasus proved no exile to the freedom-loving poet. Here he wrote his novel, A Hero of Our Time (1840), and here he died, like Pushkin, in a duel. His character and poems were alike Byronie.

Leroi, Julien David (1721-1803), a French writer on architecture, born in Paris. He went to Bone to study.

All kinds of guipure and lace are here (2nd ed., 1770), which was the earliest systematic account of the archæological remains of that country.

Leros, one of the southern Sporades near Delos in the Ægean, forming part of the Ottoman empire. There are part of the Ottoman empire.

marble quarries. Pop. 3000. Leroy-Beaulieu, Henri Jean Baptiste Anatole (b. 1842), a French publicist. He wrote a series of articles for the Revue des Deux Mondes (1882-89). In book form these articles became subsequently known as L'Empire des Tsars et les Russes. In another of his Russian studies, Un Homme d'Etat russe, he told the story of the emancipation of the seris under Alexander III. He also wrote several books on Judaism and the Jews, and on Roman Catholicism and the papacy.

Leroy-Beaulieu, Pierre Paul (b. 1843), a French economist. Having already contributed to the Journal des Débats and the Revue des Deux Mondes, he founded in 1873, L'Economiste Français, of which he is still director. In 1872 he began to lecture on the finance at Ecole Libre Sciences Politiques, at the institu-tion of which he had assisted. To-day he is a member of the Institut de France, and professor of political economy at the Collège de France. In his popular Collectivisme (1883), he exposed the errors of collectivist doctrines. Other of his works are: La Colonisation chez les Peuples Modernes, 1874; and a Trailé de la Science des Finances, 1877. Lerwick, a seaport in the Shetland Is., Scotland, and the most northerly tn. of the United Kingdom. It is on Pressay Sound

Bressay Sound, a natural harbour on the E. coast of Mainland, and lies 115 m. to the N.E. of Kirkwall in Orkney. L. is an important fishing station, and also a centre for the Royal Naval Reserve, who use the old Cromwellian fort as their depôt.

Old Cromwenian for as an array of the Pop. (1911) 4654.

Le Sage, Alain René (1668-1747), a French author and dramatist. An assiduous writer, he published over a hundred dramas, the best of the published over a hundred dramas, the best of the published over a hundred dramas, the best of the published over a hundred dramas, the best of the published over a hundred dramas, the best of the published over a hundred dramas, the best of the published over a hundred dramas, the published over a hundred dramas and the published dramas and which are: Crispin rival de son maître (1707), an extravagant farce of a knavish valet, and Turcaret (1709), a brilliant and essentially Molièresque comedy and satire on the contemporary dealers in finance. But his posterior fame rests on his romances, But his Le Diable Botteux (1707), and Gil Blasde Santillane (completed in 1735). like Pushkin, in a duel. His character and poems were alike Byronic.

Leroi, Julien David (1724-1803), a French writer on architecture, born in Paris. He went to Rome to study characters of Gil Blas and the prethe antiquifties. In 1754 he visited Greece for a similar purpose, and on lis return published his Ruines des la Grèce dawn with the detachment of a

Les Andelys, a city in the dept. of Eure, France, 30 m. S.E. of Rouen by

Pop. 5500. rail.

Lesbonax, a Greek rhetorician, who the days of Augustus. in According to Suidas he wrote at least sixteen political orations, but two only have survived to our times. In one of these he urges the Athenians to persist in their struggle with Sparta.

Lesbos, Mitilini, or Mytilene, see

MYTILINI.

Les Cayes, W. Indies, see Aux Cayes. Leschenaultia, a genus of evergreen shrubs. L. biloba major is one of the finest blue flowering plants grown in the greenhouse. It needs a minimum temperature of 45° during the winter, and any damage to the roots must be avoided. Other species include L.

formosa with scarlet flowers.

Jornasa Willi Scarner Bowers.
Lescot, Pierre (c. 1510-78), a French architect, was an abbé of Chuny, and a canon of Notre Dame. What is now known as the Vieux Louvre, the western side, that is, of the quadrangle facing the Tuileries, was designed by him. This contains the famous Salle des Caryatides. . It is believed that he collaborated with Jean Goujon in supervising the commencement of this palace.

encement of this palace. Less-majeste, see Leze-Majesty. Lesghians (also called Lesghis, Lezghines, and Leki) are a people, composed of a variety of lesser tribes, who dwell with the Tchetchenzes in ılso in

ly, and There

ıll, and among them are included Avars. Kurinjans, Lakians, Andians, and Kasimukhians. In 1859 when Shamyl, their leader, was taken prisoner, they lost their independence and came under the Russian yoke. As a people they are brave, hardy, and quick to learn, and excel especially in the making of cutlery and shawls.

Lesina, an island in the Adriatic, belonging to Dalmatia, Austria. The islanders are engaged in the cultivation of olives, grapes, figs, etc., and in fishing and boat-building. Lesina is

the cap. Pop. of island 18,000. Leskovac, or Leskovatz, a tn. of Servia, 26 m. N. of Vranya. Hemp,

flax, and tobacco grow in plenty. Pop. 14,266.

Loslie, a market tn. on the Leven, 3½ m. S. of Falkland, with bleachworks and fax-spinning and paper mills in W. Fifeshire, Scotland. Pop. (1911) 2142

Leslie, Lesly, or Lesley, The family of, descended from Malcolm, son of Bartholf, who lived during the latter part of the 12th century in Lesslyn or 1

great artist, whilst as a stylist Le Sage | Leslie, in Aberdeenshire. In 1457 the ranks with the best authors of his day, family received a title by the conferment of the earldom of Rothes on George L., a pative of Rothes. soventh carl was created Duke of Rothes, Marquis of Ballinbreich, but died without issue, the title continu-ing through the family of his eldest daughter. Connected with the Earls of Rothes are the Earls of Lovel, scended from Alexander L. (q.v.); the Lords Lindores, whose title created in 1600, and became extinct in 1775; and the Lords Newark, the first of whom was David L. (q.v.). See Colonel L.'s Historical Records of the Family of Leslie, 1869.

Leslie, Alexander, Lord Balgonie, first Earl of Leven (c. 1580-1661), a Scottish general, a native of Aberdeenshire. He enlisted as a common Adolphus, King of Sweden, but by 1636 he had been promoted to the rank of field marshal of Sweden, and his gallantry was awarded by a knighthood. He fought with great distinction in the Thirty Years' War, holding the chief command under Gustavus. In 1629 he successfully Gustavus. In 1629 he successfully defended Stralsund against the insurgent imperialists, led by Wallenstein. Nine years later he was recalled to Scotland to resist the ecclesiastical policy of King Charles I. and set himself to organise the Covenanting army. With his army he marched S. to Duns Law in 1639. and in 1640 reached Newcastle, which he held till the treaty of Ripon in 1641. In August of that year he was received by the king and created Earl of Leven and Lord Balgonie. He fought in Ireland in 1642, and later supported Charles against the Parliamentarians. After the execution of the king, he worked for the restoration of Charles II., and fought against Cromwell at Dunbar in 1650. In 1651 he was imprisoned in the Tower, and on his release retired to Scotland, and died at Balgonie, in Fifeshire. See Terry's The Life and Campaign of Alexander Leslie, First Earl of Leven, 1899.

Leslie, Charles (1650-1722), an Angli-

of his benefice on refusing to take the or als beneaice on retusing to take the oath of allegiance at the accession of William and Mary. In 1689 he went to England, where he wrote numerous pamphlets, the chief of which are: Gallienus Redirious, or, Murther will out (1695); and The Good Old Cause, or, Lying in Trulk. The latter caused a warrant to be issued for his caused a warrant to be issued for his He escaped to St. Germains and joined the Pretender arrest. (1711)

1859), an English painter and writer. born in London of American parents. His first successful picture was 'Anne Page and Siender,' which was fol-lowed by 'Sir Roger de Coverley going to Church.' He chose his subgoing to Chiefly from the works of Shakespeare, Addison, Fielding, and Cervantes. In 1624 he was elected an R.A. after the exhibition of his 'Sancho Panza and the Duchess.' He was appointed professor of drawing at the Military Academy at West Point (1833-34), and professor of painting at the Royal Academy (1848-51). He also gained some popularity as a writer, his chief books being Handbook for Young Painters (1845), a Life of Constable (1845) and of Sir Joshua Reynolds, which was completed by Tom Taylor, who also edited his Autobiographical Recollections, 1860. Newark

Leslie, David, Lord (d. 1682), a Scottish general, fifth son of the first Lord Lindores. He took part in the Thirty Years' War, serv-He took ing under Gustavus Adolphus, but returned to Scotland about 1640 at the time of the rise of the Covenanters against King Charles I. Joining the troops under his kinsman, Alexander Leslie, Earl of Leven, as lieutenantfought in the

Charles took camp. With

the rest of the Covenanters, be went over to the Royalist side, and after some strategic success was taken prisoner by Cromwell at Worcester in 1651, and was confined in the Tower till the Restoration. In 1661 he was created Lord Newark. Consult Gardiner's History of the Great Civil War.

Leslie, Frank, see CARTER, HENRY. Leslie (or Lesley), John (1527-96), a Scottish bishop and historian, born at Kingussie, inverness-shire, where his father, Gavin L., was rector. He studied theology at Poitiers, Toulouse, and Paris, and took holy orders in 1558. He was strongly opposed to the Reformation, and in 1561 had a disputation with Knox and others. In the same year he went to France to accompany home the young the young whose Queen Mary, whose friend and spiritual adviser he continued to be to the end of her life. His promotion was now rapid. He was appointed Political Philosophy, 1888.

professor of canon law, Aberdeen Lesmahagow, a coal-mining vil., (1562), privy councillor (1565), Abbot 5 m.S.W. by W. of Lanark, in Lanark-

(1715), finally returning to Ireland in 1721. His Theological Works were published in 7 vols. (Oxford 1832).

Leslie, Charles Robert, R.A. (1794-1850), and was largely responsible for the 1860 Acts of Actis and Constitution of the Parkment Statistics (1860). tionis of the Realme of Scotland (1566). On the imprisonment of Mary in England, he appeared as her ambassador before Elizabeth, plotted for her escape, and made plans for her marriage with the Duke of Norfolk. In consequence, he was imprisoned in the Tower (1571-73) and was banished from England (1573). While on the Continent pleading Mary's cause, he published De Origine, Moribus et Rebus Gestis Scotorum (Rome, 1578). In 1579 he was made suffragan and vicargeneral of the diocese of Rouen, and was twice imprisoned on account of his political opinions. He was appointed Bishop of Coutances in Normandy (1593), and died in an Augustinian monastery near Brussels. His writings include: A Defence of the Honour of . . . Marie, Queene of Scotland, 1569, 1571, and 1574; and De illustrium feminarum in republica administranda authoritate libellus. 1580. See Cody's edition of the Latin history (Scottish Text Society, 2 vols., 1888-95).

Leslie, Sir John (1766-1832), Scottish mathematician and physicist, born at Largo in Fifeshire. He spent 1788-89 in Virginia as a private tutor, and then held a similar position professor of mathematics at Edinburgh, and of natural philosophy in 1819. He discovered a process of artificial congelation in 1810, which he published in A Short Account of Experiments and Instruments depend. ing on the Relations of Air to Heat and Moisture, 1813. His other works include: Geometry of Curve Lines, 1813; Philosophy of Arithmetic, 1817; and Elements of Natural Philosophy Elements of Natural Philosophy (vol. i.), 1823, unfinished. He was elected a member of the Institute of France in 1820, and was created a

knight in 1832. Leslie, Thomas Edward Cliffe (1827-82), a Br in co. was called to the bar, but was more in-terested in social questions than in law. In 1853 he was appointed to the chair of jurisprudence and political economy at Queen's College, Belfast, but continued to live in London. His papers on industrial economy were collected in The Land Systems, 1870; Essays on Political and Moral Philosophy, 1879; and Essays in Political Philosophy, 1888,

of Lindores (1565), and Bishop of shire, Scotland. Pop. (1911) 11,990.

d'Albon. For ten years (1754-64) she acted as companion to Mme. du Deffand, and in her salon made the acquaintance of D'Alembert, and other members of her brilliant coterie. But the attractions of her reader roused the jealousy of Mme. du Deffand, and a violent quarrel ensued, the upshot of which was that Mile, de the upshot of which was that Mile, de L. set up a rival salon, and D'Alem-bert shared her roof. She did not, however, accept him as her lover, but, as her Lettres (published in 1809) reveal, was the victim of a devouring passion for the Comte de Guibert, and in a less degree for the Spanish Marquis de Mora.

Lesseps, Ferdinand, Vicomte (1805-94), a French diplomatist, born at Versailles. In 1828 he was sent at Versailles. as assistant vice-consul to Tunis, and in 1832 he was appointed vice-consul at Alexandria. He received the Cross of the Legion of Honour for his heroic conduct, during an epidemic of the plague (1834). He became consul of Cairo, and while here began his plans for the construction of the Suez Canal. In 1837 he married Mile. Agathe Delamalle. He served as consul at Rotterdam, Malaga, Barcelona, and Madrid. In 1854 he received the concession authorising him to pierce the isthmus of Suez. He obtained, by subscription, more than half the capital he needed, and the canal was finished in 1869 (see SUEZ CANAL); for this he received the Grand Cross of the Legion of Honour, and an English knighthood. In 1881 he commenced the Panama Canal. The funds were insufficient and political trouble followed, the company was wound up in 1888, and the directors were charged L. came to England enfeebled in health and broken with trouble. He died at La Chennie Harrowse. died at La Chenaie. He was a man of great courage, with a reverence for duty and honour, possessing simple tastes and an affectionate nature. His second wife was Mdlle. Autard de Bragard. By his first marriage he had five sons, by the second twelve children. He was a member of the French Academy and of the Academy of Sciences. See G. Barnett Smith, The Life and Enterprises of Ferdinand de Lessens, 1893.

Lesser Antilles, see ANTILLES and

West Indies.

Lessines, a city on the Dender, 13 m. S.E. of Oudenarde, in the prov. of Hainaut, Belgium. Pop. (com.) 10,500. Lessing, Gotthold Ephraim (1729-81), a German essayist, critic, and dramatist, born in Kamenz in Upper Lusatia. After five years at Meissen! Reimarus Fragmente; but for fear of

Lespinasse, Jeanne Julie Eléonore de he passed in 1746 to Leipzig Uni-(1732-76), a French author, the illegi-versity to study theology, but found versity to study theology, but found more attraction in philosophy and literature. After a few years' literary hackwork in Berlin he went to Wittenberg (1751-52) where, in the course of extensive reading, he took tourse of extensive reading, he took his M.A. The next two years were spent in Britain studying Latin and English literature; in 1754 appeared his first work of importance, Vademeeum für den Herrn G. S. Lange. About this time he be-came intimate with Nicolai, and col-laborated with Moses Mendelssohn in the brilliant essay Pope, ein Mela-physiker (1755); the same year saw the publication of his first drama of any worth, Miss Sara Sampson, the outcome of his studies in English literature. The Seven Years' War (1756-63) cut short a three years' tour L. had projected, and he returned to Leipzig where he remained for a time with the poet Von Kleist; but 1758 found him again in Berlin with Nicolai and Mendelssohn, with whom he issued a journal, Litteraturbriefe, conissued a jointal, Entertuaroriee, consisting of letters in criticism; the fifty-four letters which L. himself contributed are the direct antecedents of his later writings, and possess much contributed in the contributed of the later writings. insight, and

65 he was

of Breslau, but returning to his literary career he produced in quick succession two of his finest masterpieces: Laocon (1766), one of the greatest constructive critical works on asthetics ever written, and Minna von Barnhelm (1767), the first great comedy in the German language in point of both chronology and merit. His essays on the Fable (1759) and the Epigram (1771) must also be mentioned. His ideas found a maturer expression in his Hamburgische Dramaturgie (1769), the outcome of his short-lived connection with the National Theatre of that town. A series of brilliant pamphlets followed, notably the essay Wre die Allen den Tod gebildet (1769), written in controversy against Klotz, and the whole school of eclectics, who had attacked his Laccoon. The following year he became librarian at Wolfenbuttel. under the patronage of the Duke of Brunswick, with whom he subsequently travelled in Italy; and here Emilia Galotti (1772), his greatest tragedy, was published. In 1776 he married Eva Konig, but she died in childbirth after little more than a year's conjugal happiness. Mean-

work

incurring the displeasure of his patron he returned to 'his old pulpit, the stage,' and summed up his ideas on toleration in the splendid dramatic poem, Nathan der Weise (1779). The following year saw the completion of the masonic dialogues, Ernstund Falk, and also Die Erziehung des Menof his

L. on subsequent literary development is incalculable. His works rank as monuments of constructive criticism; they bear witness to his profound learning and are written in an exceptionally concise and vivid style. He was the opponent of pedantry, the champion of culture against mere knowledge; and his writings rereal a keen mind which hated injustice, intolerance, and bigotry as much as it loved truth,

breadth of vision, and independence. Bibliography.—Works: Lachmann (re-edited Muncker), 15 vols. (1886-1900); Boxberger and Blümner, 14 vols. (1883-90). Lives: (German) Schmidt (1884) and Borinski (1900); (English) Sime (1877), and Rolleston (1889). Crit. by Schmidt, Hebler, Blümner, etc. Most of his works can

be had in English translation in the Scott and Bohn Libraries.

Lestock, Richard (c. 1679-1746), a British admiral. He entered the navy at an early age, and becoming a captain in 1706, took part in the fight off Cape Passaro (1718). He was in the W. Indies in 1741, and being sent to the Mediterranean in 1742, took part in the battle off Toulon (1744). He was created an admiral in 1746, and placed in command of an expedition to the coast of Brittany See Mahan's Influence of Sea Power, 1896, and Clowe's The Royal Navy, 1897-1903.

L'Estrange, Sir Roger (1616-1704), an English pamphleteer, bornat Hun-stanton. In 1639 he accompanied Charles I. on his expedition against the Scots and during the Civil War was captured by the Parliamentarians in an attack on Lynn and condemned to death as a spy. He was reprieved, and imprisoned in Newgate, but escaped in 1648, and fled to the Continent, returning to England in 1653, and making terms with Cromwell. He was made Licenser of the Press at the Restoration. In 1663 swspaper The ind also The

became the London Gazette. In 1679 he founded the Observator. He lost his office as licenser at the revolution of 1688. He was a man of letters of consider-

Le Sueur, Eustache (1617-55). French sacred and historical painter, born in Paris. He studied under Vouet. His best work is a series of pictures on the Life of St. Bruno. Many of his pictures, including 'Angel and Hagar,' 'St. Paul preaching at Ephesus,' and numerous fine black and white drawings are in the Louvre, Paris. See Life by Vitet (in French), 1849.

Le Sueur, Jean François (1760 or 1763-1837), a French musical composer, born near Abbeville. He was musical director at the Cathedral of Notre-Dame, Paris, from 1786-87. From 1795-1802 he was inspector of studies at the Paris Conservatoire, and in 1804 he was appointed Maestro di Capella to Napoleon, for whose coronation Le S. composed the musical service. Louis XVIII. retained him at his court, and in 1818 appointed him professor at the Paris Conservatoire. His operas include Le Caverne, Ossian, and Paul Virginie.

Letchworth, a tn. in co. Herts., England, 34 m. from London. It was founded in 1903 as a Garden City on the lines suggested by Mr. Ebenezer Howard in Garden Cities of To-morrow, 1898, and is being developed by a joint-stock company, First Garden City Ltd., on an estate of 4566 acres. There are thirty factories at work in the industrial area, the leading trades being printing, bookbinding, and engineering. factories and workmen's cottages are models of their kind. L. is the most outstanding example of modern town-building in the world. Pop. (1911) 5000; in 1913 it was 8000. For further information see the publications of the Garden City Company, and *The* Garden City, by C. B. Purdom. 1913. Lethargy, a state of unnaturally sound or prolonged sleep from which

the sufferer can be aroused only with great difficulty. It is intermediate between heavy sleep and complete coma, and may be the result of ex-cessive exertion either of mind or body, but is more often occasioned by a congestion of blood in the vessels of the brain, when it is attended by great danger.

Lethe (Oblivion), in ancient Greek mythology, one of the rivers of the lower world whose waters, when drunk by the dead, brought them forgetfulness. The belief first appears in literature in the 5th century B.C., when Aristophanes mentions it in his the Observator. He lost his office Frogs. Plate embodies the myth in as licenser at the revolution of 1688. his Republic (x.), and Pausanias in-He was a man of letters of consider cludes the drinking of the waters of able ability, and made some good L. as part of the Orphic initiatory translations of Josephus, Cicero, rites (ix. 39, 8) with which compare Esop, Erasmus, and Quevedo.

Lethington, Lord, see MAITLAND,

SIR RICHARD.

Leto (called 'Latona' by the Romans), in ancient Greek mythology the daughter of Cœus, the Titan, and Phœbe; was beloved by Zeus, and by him became the mother of Apollo and Artemis. The later poets dwell upon Hera's persecution of her, both before and after her connection with the island of Delos, but Homer and Hesiod do not mention it. Her worship was generally connected with that of ther children, particularly at Argos and Delos.

Letter of Credit, see Banks.

Letter of Marque, a licence or com-mission granted by the government mission granted by the government to a private person to fit out an armed ship or privateer to capture the enemy's ships and merchandise in time of war, or in reprisal for damage done. Privateering was abolished by the Declaration of Paris in 1856, so that the granting of 'letters of marque' has fallen into disuse. See Wheeton's International Levy (48). Wheaton's International Law ed.), 1904; and Vall's International Law (5th ed.), 1904; also PRIVATEERS. Letterkenny, a market tn., co. Donegal, Ireland, 23 m. W. by S. of

Londonderry. Has industries of shirtmaking and rope-making. (1911) 2400.

Letters, or Epistolary writing, branch of literature which is but little studied although one of the most delightful forms. A good letter requires to be natural, easy, and well ex-pressed, suited to the nature and requirements of the person addressed. Among the 'Letters' of literature those of Madame de Sévigné occupy one of the foremost places. Among the most famous 'Letters 'in English literature the first in date are the Paston Lellers, written between various members of the Paston family (afterwards Earls of Yarmouth) during the years 1422-1509, and first published in 1823. These, not being meant for publication, are frank and natural, and provide an excellent picture of the times in which they were written. The epistolary form has often been used for didactic purposes, as the Epistles of St. Paul and the early Christian teachers, and for political purposes, as in the Lett (1769-72). Other famo are Lord Chesterfield's Son (1774-87), Sir W Paul's Letters to his Ki

(28-33). See J. E. Harrison's Production diary, but his Drapier's Letters are legomena to the Study of Greek a masterpiece of literary invective. Religion, 1908. Erasmus, Horace Walpole, Pope, Charles Lamb, Cowper, Jane Welsh, Carlyle, and Byron.

Letters, or Signs, see ALPHABET

and Phonerics.

Letters of Attorney, see Power of

ATTORNEY.
Letters Missive are letters from the sovereign conveying permission or command to some particular person, thus differing from 'letters patent,' which are addressed to the public. They are used generally for the nominations of a bishop, and are sent to the dean and chapter with the congé d'élire (q.v.).

Letters Patent, see PATENTS.
Letter-wood, the name given to the
heart-wood of Brosimum Aubletit, a species of Moraceæ found in Trinidad.

Lettres de Cachet (lettres closes), that is blank 'lettres' signed and scaled by the king and issued to governors of prisons. The insertion of a person's name therein was all that was necessary to secure committal to the Bastille or another prison. L. de C. were issued by the kings of France before the Revolution. They were abolished in 1789.

Lettres Portugaises, see Alcoro-

RADO, MARIANNA.

Letts, an Indo-European people of the Lithuanian race, living chiefly in the W. of Russia. They are agricultural peasants, christianised by the Teutonic knights. They have a distinct language and literature containing much poetry.

Lettuce, the valuable salad plant which can be produced for use on any day in the year. It originated from Lactuca scariola, a native of Southern Europe. The cabbage L. is low and cabbage-like, the cos L. comes later in the season and is more crisp, erect, and compact, but these types

are widely varied.

are widely varied.
Leucadia, or Leukas, the ancient name of one of the Ionian Is., now called Santa Maura, lying off the coast of Acarnania, 50 m. S.E. of Corfu. It is about 20 m. long, with a greatest breadth of 8 m., and has an area of 110 sq. m. The surface rises in rugged limestone heights, from the chelter appearance of which the chalky appearance of which the

ontory (Cape Ducato) end of the island rises is the legendary scene cap ' and the death of

and Letters to his Ki and Letters of Malachi Malagrouther Afficults and in recent times the (1826), and in recent times the Vailima Letters (1895) of Robert currants, and wine. The capital, Louis Stevenson. Swift's Journal to Amaxikhi, or Santa Maura, lies at the Stella is more in the nature of a N.E. end. The land was colonised in

the 7th century B.C. by the Corin-disease characterised by an excessive thians, who made it an island by number of leucocytes or white corcutting a canal through the isthmus which joined it to the mainland. Professor Dörpfeld identifies it with the Ithaca of the Odyssey. Goessler, Leukas-Ithaka, 1904.

Leuchars, a vil. and par. of Fife-shire, Scotland, 6 m. N.W. of St. It has a church dating from the 12th century with a Norman apse and chancel. Pop. (1911) 2605.

Leuchtenberg, a former principality of Bavaria, in the Upper Palatinate. Capital, Pfreimd. It was given to Eugene Beauharnais by Napoleon in It was given to 1817 with the title of Grand Duke of

Leuchtenberg.

Leucine, or Aminoisocaproic Acid, (CH₈)₂.CH.CH₂.CH(NH₂).COOH, a substance found widely distributed in the animal juices, particularly in the It is produced by the pancreas. putrefaction of proteins, and may be prepared from proteins such as casein hydrolysis. L. crystallises in glistening plates which melt at 270° C., and are soluble in water and moderately so in alcohol.

Leucippus (fl. 6th century B.C.), a Greek philosopher, the contemporary of Zeno and Anaxagoras, and the founder of the Atomistic theory afterwards developed by Democritus.

Leuciscus, or White Fish, a genus of the teleostean family Cyprinidee, and forms a sub-family Leuciscina. L. rutilus (the roach), L. cepalus (the chub) L. vulgaris (the dace), and L. phoxinus (the minnow) are familiar species

isotropic, so that tl

ture is probably

ture is probably

phonuclear cell, derived

from the bone-marrow and constitut
become again doubly refracting on ling 70 per cent. of the total number

being cooled. The crystals are white of colourless corpuscles; the cosino
or colourless corpuscless; the cosino
or colourless corpuscless corpuscles

distributed throughout the grone, especially in the form of lavas in the neighbourhood of Vesuvius and Rome. They are usually rocks which contain felspar but no quartz.

Leuckart, Rudolf (1823-98), a German naturalist, born at Helmstadt. In 1850 he was appointed professor and in 1860 of

and numerous works on helminthology.

puscles, in the blood. There are several forms of the disease, but all may exhibit enlargement of the spleen, the lymphatic glands, and The acute form of bone-marrow. lymphatic leucemia is generally fatal, and is characterised by a high temperature, progressive anemia, great enlargement of the spleen and lymphatics, and softening of the bonemarrow. The chronic form of lymphatic leucæmia is characterised by similar changes in the lymphatics, but a lesser degree of hypertrophy in the spleen; it may last for two or three years. Myelogenic leucemia is due to disease in the bone-marrow. It is nearly always chronic, and may run its course with varying severity for several years, though ultimate cure is The presence of numimprobable. bers of leucocytes, and the accompanying anæmia, appears to be caused by the functions of the bone-marrow, in replacing red corpuscles being diverted to the preparation of white corpuscles. There is no satisfactory treatment for the disease.

Leucocytosis, an increase in the number of white corpuscles above the average number contained in the blood. The white corpuscles, or leucocytes, act as destroyers of microbes that may have attacked the tissues. They are attracted to any portion of the body where such microbes are numerous, and the need for performance of their functions stimulates the production of leucocytes. L. is, there-Leucite, a rock-forming mineral, consisting of potassium and aluminium metasilicate, KAl(SO₂). It cytes has been unduly stimulated. In crystallises in icositetrahedra in the normal health the number of leucocubic system, but the crystallise are not interesting as that the

These are five varieties:

or ash-grey in colour, have a hardness phile cell, derived from bone-marrow, of 5.5, a sp. gr. of 2.5, and a con- and forming 2 per cent. of the whole; choidal fracture. They often contain the lymphocyte, derived from the hold tissue, and forming above

distributed throughout the globe, the lymphocyte, and forming 4 per especially in the form of lavas in cent of the whole; the basophule, a the neighbourhood of Vesuvius and cell rarely found in the blood of adults. The functions of the different varieties vary to a certain extent; they probably have varying capacities for attacking the different pathogenic organisms. L. is usually associated with an increase in the number of collections of the collection of the of zoology at Giessen, and in 1869 at with an increase in the number of Leipzig. He published The Parasites polymorphonuclear cells, although of Man (Eng. trans. by Hoyle, 1886) there are allied conditions in which the lymphocytes or the cosinophile cells may be increased above the Leucocythæmia, or Leucæmia, a average. During the process of digestion and in the course of pregnancy ! the leucocytes are increased in num- Greece, 6 m. ing and

degr occu influenza, measles, malaria, typhoid fever, it is possible to base a differential diagnosis on the extent of L. In typhus fever, for instance, it is very pronounced, and it is an import-ant symptom in trichinosis, the disease caused by the parasite, trichina spiralis, of the pig. The number of leucocytes in many cases bears a relation to the defensive power of the blood against bacillary invasion, and a sudden fall in the quantity of leuco-cytes is a sign of danger in many diseases. When the number becomes excessive, the condition is called leu-cocythamia or leucamia (q.v.). An in-crease in the number of lymphocytes is know milar conditi ells is

called . dition is characteristic of some forms of insanity. The opposite condition to L., that is, where there is marked absence of leucocytes, is called

leucopenia.

Leucol, a name applied or its isomer, isominoline (C.11718). Both are obtained in the distillation of coal tar, and occur in the fraction which comes over between 236° and 243° C. Isoquinoline is separated by converting the mixed bases into the acid sulphates and subsequently decomposing the sulphate of iso-quinoline with potash.

Leucoma, an opacity of the cornea, or anterior transparent portion of the To outward appearance a white spot is presented, bearing a certain likeness to ground glass. According to the position and extent of this opaque area, a certain amount of disturbance of vision is occasioned. The condition is caused by inflammation resulting from injury or infection from the conjunction. If the inflammation occurs below the epithelial layer of the cornea, a loss of tissue takes place, and the place of the destroyed tissue is taken by opaque connective tissue. After the actual inflammation has ceased, the opacity may gradually clear up, but in many cases it per-sists and threatens to become permanent. Gentle massage of the eye-ball may aid the disappearance of the cloudy area, but in general it is not advisable to interfere much with

the eye while any trace of in-flammation remains. L. is to be dis-tinguished from fatty degeneration of the margin of the cornea which

in old people.

Leuctra, a vil. in Bœotia, ancient from Thebes, and ictory gained in its

er resort of Switzeron of the Valais, on the r. b. of the Rhône, 151 m. E. of Sion. At Leukerbad, about 10 m. N. of the town, at an altitude of 4629 ft.. are hot, saline, chalybeate, and sulphurous springs, twenty-two in number. L. has several times been destroyed by avalanches, from which it is now protected by a strong embankment.

Pop. 2000. Leukoran, or Leucoran, a tn. in the prov. of Baku, Russia, situated at the mouth of the Leukoranka in the Caspian Sea. This town came under the power of the Russians in 1813.

Pop. 5500.

Leunclavius, Johann (1533-93), a German scholar and historian, born in Westphalia. He travelled in Europe and the East in search of

is called tions of the works of Zosimus and and an abridgment

in two folio volumes.
Leusuch, John (1624-99), a Dutch
philologist and Hebrew scholar, born at Utrecht. In 1649 he was appointed to the chair of Hebrew at Utrecht and held it until his death. Many curious biblical questions are explained in his Philologus Hebraus, 1656: Philologus Hebraco - Mixtus, 1663; racus. 1670. s are: Schol: Bibliof the

cum, N.T., 1675.

Leuthen, a vil. in Prussian Silesia, 10 m. W. of Breslau; famous for Frederick the Great's victory over the Austrians in 1757. Pop. 600.

Leutschau, or Löcse, a tn. in Zips co., Hungary, near a tributary the Hernad, 125 m. N.E. of Pesth. has a church dating from the 13th

century. Pop. 8061.

Leutze, Emanuel (1816-68), a Geran-American painter, noted for man-American pictures, born his historical Gmünd, Würtemberg. From 1841-59 he studied art at Düsseldorf, Munich, Venice, Rome, and other places. He returned to America and painted various historical pictures, amongst which are: 'Westward the Star Empire takes its way (Capitol, Washington), Washington Crossing the Delaware (Kunsthalle, Bremen). Columbus before the Council at Salonica,' Cromwell visiting Milton, causes a white opacity in that region and some portraits. Washington.

Leuwenhoek, see LEEUWENHOEK, ANTHONY VAN.

Leuzinite, a mineral, classed by some geologists as a variety of

French traveller and

(1777-80) and explored parts of various instruments. A surveying Central Africa (1781-85). His works instrument, known as the levelling include: Voyages dans l'Intérieur de instrument, is of a telescope bearing l'Afrique Oiseaux d'Afrique; Histoire Naturelle frame. The instrument is similar in des Oiseaux Paradis et des Rolliers.

Levant (from the It. il levante, it reneral

from Greece to Egypt, but now generally restricted to the Mediterranean restricted to coast-lands of Asia Minor and Syria. See Hart's A Levantine Log-Book, 1905.

Levanter, a strong easterly wind prevalent in the western end of the Mediterranean and off the N. African

coast during the summer months. Levant et Couchant, a legal term used when a landlord sues the owner of cattle which have been trespassing on his land for not less than twentyfour hours, that is long enough to lie down and get up to feed (couchant et levant). The term is also used for the right of a cattle-owner to pasture right of a cattle-owner to pasture (levant et couchant, i.e. by day and by night) his cattle on common pasturage.

Levanto, a scaport, prov. of Genoa, aly, 11 m. W.N.W. of Spezia. Italy, 11 Pop. 5000.

Levée (Fr. lever, to rise): morning ceremonial visit visit to the sovereign of such gentlemen as have the right of entry. The name arises from the fact that these visits were first inaugurated by the kings of France who held these receptions in their dressing-rooms. A L. is distinguished from a 'drawing-room' in England, inasmuch as only gentlemen attend the former. 2. A French term for an embankment which keeps a river in its channel; the term is also sometimes used for a riverside

quay. Lé ··· testing the or for obta a line parallel to the horizon. The water-L. in its simplest form consists of a long glass tube with both its ends bent upwards and nearly filled with water, the surfaces of which in the two ends will always be in a horizontal line. The spirit-L. is much more commonly used, and is more convenient and accurate. This consists of a glass

side and nearly filled with alcohol, closed at both ends, and cased in brass or wood, so that it has a plane under surface on which it may rest. halloysite. It is a hydrous silicate of The bubble of air left represents the alumina, and is opaline and translu- free surface of the liquid and seeks the highest position possible, which Levaillant, François (1752 1994) a lie in the middle of the tube when the

on which it rests is horizontal. born at Paramaribo, I rveying purposes spirit-Ls. He studied natural history in Paris are much used in combination with Histoire Naturelle des a L. and mounted horizontally on a construction to a theodolite: the bubble by which the instrument is brought into a position at right angles to the axis of the earth is coastgenerally placed at the top of the telescope. In the better kinds the diaphragm on which the image is formed is made of glass, and crosshairs are engraved thereon; the eyepiece and the object-glass are interchangeable, to facilitate adjustment for collimation. To obtain the difference of L. between two points A and B, the levelling instrument is planted at a suitable place between the points; the heights at which the line of sight is out off by a graduated leveling staff held at A and B are read off, and the difference gives the difference of L. between A and B. See SURVEYING; for a L. in mining

See SURVEYING; for a L. II minutes see also Mining.

Level Crossing, also called Grade Crossing, a place where the railroad is crossed by a common road at the same level. By the Level Crossings Act, 1839, the Railway Regulation Act, 1842, and the Railway Causes Consolidation Act, 1845, such crossings must be protected by a gate, to ings must be protected by a gate, to be kept shut across the road by the railway company and protected by a flagman or a signal, or to be closed across the railway by special order of the Board of Trade. Where such a crossing adjoins a station the speed

limit must not exceed 4 m. an hour. Levellers, ultra - republican anpolitical party in England during the Civil War. Powerful in the parliament during the early years of the Commonwealth, they advanced their views in numerous violent pamphlets, the most returned by being by John

Lilburne. the form

after the 1649 broke out into a mutiny, suppressed by Fairfax.

Leven, a tn. at the mouth of the Leven, Firth of Forth, Flifeshire, Scotland, 9 m. N.E. of Kirkcaldy. It is a health resort, and has fine golf links. The chief industries are ropetube slightly convex on the upper making, flax-spinning, and linenweaving. It has also breweries, abound in all mechanism, though foundries, and collieries. The Earl of very often in a discussed form. Leven takes his title from this town.

Pop. (1911) 6559.

Leven, Loch, a lake in the co. of Kinross, Scotland, has an area of 5½ sq. m., and is 11 m. in circuit. The surplus waters are discharged by the R. Leven. It contains seven islands, on one of which, Castle Is., are the ruins of Loch Leven Castle in which Mary Queen of Scots was imprisoned (1567-68). A causeway just under water connects the island with the W. bank. St. Serf's, the largest, contains the ruins of an old priory. It has famous trout fisheries.

Levenshulme, a tn. in S.E. of Lancashire, England, 3 m. from Manchester. The chief manufs. are cotton and woollen goods and machinery. Pop. (1911) 12,000. Lever, a rigid bar which turns about

a point called the fulcrum. The points of the bar on each side of the fulcrum are called the arms. applying force at one point on the L. a weight is raised or resistance overcome at another point. There are three classes of Ls., according to the position of the fulcrum in regard to the power and weight: (1) Where the fulcrum is between the power and weight; to this class belong the crowbar, a poker in the bars of a grate, the handle of a pump, etc. The bascules of the Tower Bridge are of this class, the visible portion representing an arm of the L. (2) Where the weight is in the middle; to this class, heading a graph of the property of the control of the co class belong a wheelbarrow, nut-crackers (a double L.), etc. (3) Where crackers (a double L.), etc. (3) Where the power is in the middle; to this class belong the treadle of a lathe, a pair of tongs, etc. In a L. the power multiplied by its arm, or distance from fulcrum, is equal to the weight multiplied by the arm. If the force applied to the L. is less than the resistance of the weight that L is resistance of the weight that L is resistance of the weight that L is resistance. sistance of the weight, the L. is said to work at a mechanical advantage, if vice versa, at a mechanical dis-advantage. Ls. of the first class may work either at an advantage or disadvantage, or the force may be the second class always work at an advantage, and those of the third class always at a disadvantage, though there is the advantage in the last class that the object moved is moved through a greater space than the power. In bent Ls. the perpendicular distance from the fulcrum to the meeting-place of the lines of direction of the forces is taken for calculation. Compound Ls. are those in which the short arm of one acts on the larger arm of another, as in draw-

Lever: 1. Great, a tn. in Lanca-shire, 1; m. S.E. of Bolton, has coal and iron mines, and manufs. chemicals. Pop. (1911) 4600, 2. Little, a tn. 3 m. S.E. of Bolton, Lancashire, has cotton mills, bleaching yards, and collieries. Pop. (1911) 5200.

Lever, Charles James (1806-72), a novelist, born at Dublin. He contributed in 1837 to the Dublin University Magazine 'Harry Lorrequer,' which at onceachieved a remarkable success. This was followed by Charles O'Malley (1840), Jack Hinton, the Guards-man (1843), Tom Burke of 'Ours' (1844), and Arthur O'Leary (1844). These books were entirely without form, and with a minimum of plot. but the author's high spirits carried the reader with him, and the characterisation and the good stories made the works irresistible. The Knight of Gwynne was one of his best novels, but The Dodd Family Abroad, the story of an Irish middle-class family abroad, told in letters, though less popular, was an excellent and amus-ing book. There is a biography by Edmund Downey, 1906.

Lever, Sir William Hesketh (b. 1851). chairman of Lever Bros., Ltd., Port Sunlight, born at Bolton, entered his father's business there in 1867, and removed to Wigan in 1877. He was Liberal M.P. for Wirral division (Cheshire) 1906-10. In 1911 he was created a baronet. He is a well-known Liberal and Congregationalist, and is chairman of the Liverpool School of

Tropical Medicine.

Leveridge, Richard (1670-1758), a celebrated bass vocalist, and composer, born in London. He appeared in opera at Drury Lane and Queen's Theatre, and later at Lincoln's Inn Fields and Covent Garden. He wrote Britain's Happiness, Pyramus and Thesbe, and a number of songs, one collection of which had a frontispiece engraved by Hogarth. His most popular songs are: All in the Downs, and The Roast Beef of Old England.

Loverrier, Urbain Jean Joseph (1811-

77), a French astronomer, born at St. Lô, Normandy. In 1846 he was admitted to the Academy. His most notable work was the inference of the existence of the planet Neptune, and his calculation of the point at which it would become visible. It was discovered in the position by Galle. In 1849 he was elected to the Legislative Assembly and was made a senator by Louis Napoleon in 1852. In 1854 he became director of the observatory of Paris.

Levertin, Oscar (1862-1906), bridges, testing-machines, etc. The Swedish novelist, poet, and critic three types of Ls. above described born in Ostergötland. He became

professor of literature at Stockholm. His early tendencies in fiction were towards 'naturalism,' but he repudiated this in his novel, Pepitas bröllop (1890), written in conjunction with Verner von Heidenstam. He also issued two volumes of short Rococonoveller stories, and Sista His poetical work includes noveller. Legender och visor (1891), Nya Dikter (1894), and Kung Salomo och Morolf, and his chief critical production was Teater och drama under Gustaf III.

Leveson, Sir Richard (1570-1605), an English admiral, born at Lilleshall, He served against the Shropshire. Armada, and in 1596 commanded an

attack on Cadiz, and was knighted. Levi, Leone (1821-88), an English jurist and statistician, native of Ancona, Italy. He settled in Liverpool (1844); lectured on political economy. In 1852 evening classes at the .

these word a great creat 110. are: 1873; of Britis,

Wages of the Consequences, 1881; Working Classes, 1885; International Law, 1887, and others

Leviathan, a name that occurs five times in the O.T., viz. Ps. civ. 25-6, Ps. lxxiv. 14, Is. xxvii. 1, Is. 1i. 9, Job. xli. In the last place a description of the reptile is given. In all cases but that in Ps. civ. the term is usually explained as referring to the crocodile, and this animal being known to the Israelites chiefly from the crocodiles of the Nile, it was often used as the symbol of Egypt (Is. li.). Some have seen in L. and Behemoth legendary creatures combined from various Egyptian and Babylonian myths.

Levis, or Point Levi, a tn., cap. of Leviksia, or Lefkosia, see Nicosia. Leviksia, or Lefkosia, see Nicosia. Leviksia, or Island Ovalau, was until 1882 the capital of the Fiji fortified, has fine dealer. It is Islands (a.v.). great has $_{
m fine}$ docks, fortified, shipping trade, as manufs. Pop. 7300. and considerable

Levita, Elias (1465-1549), a cele-brated rabbi, philologist, critic, and emergency, poet. He spent most of his life in stricted to a Rome and Venice, and had a wide certain ages circle of friends there. His works are on the Psalms, Job, Proverbs, Amos, a Talmudic and Targumic dictionary, and a Hebrew grammar. See his Life for purposes of defence or offence. by J. Levi.

Levites, an Israelitish tribe whose origin is traced from Levi, the son of Jacob and Leah. Levi is considered by some critics as merely the eponym of the priestly caste, and some have entirely denied the existence of the On account of the L. as a tribe. attack made on Shechem by Simeon and Levi, these two tribes were not given a portion of the territory of Canaan, but were scattered throughout the country. The history of the L, is rendered very complicated by the gradual development that took place among the Jews in the direction of an exclusive priesthood and Deuteronomy a single sanctuary. (x. 8 and xxi. 5) speaks of the separation of the L. from the rest of the tribes for the work of bearing the ark, for the ministry of Yahweh, and for the deciding of controversies. But the lateness of this view is shown he was appointed professor at King's by the contemporary injunction that College, London, which position he the Israelites should erect a single filled with distinction. on taking possession of

The Priestly Code and Numbers distinguishes the L. generally from the family of Aaron in particular. These last constituted the priesthood, while the L. ministered to them and had charge

of the sacred ornaments. They were not allowed to offer sacrifice.

Leviticus, the third book of the Pentateuch, belongs almost entirely to the stratum known as P. (see HEXATEUCH). It is concerned chiefly with legislation regarding the priestly functions. Chs. i.-vii. deal with the Laws of Sacrifice and with certain priestly regulations. Chs. viii.-x. deal with the consecration of priests, and chs. xi. xvi. with the Laws of Purification and Atonement. The section consisting of chs. xvii. xxvi. is known as 'the Law of Holiness,' and stands apart fror

and is deri

Leviathan, a British cruiser of probably
14,100 tons and 23 knots, launched at Clydebank in 1901.

Levico, a tn. in the Tyrol, Austria, 10 m. S.E. of Trent. It is much the necessity of holiness.

Levkas, see Leucadia.

Levy (Fr. lerée, from lerer; Lat. lerare, to raise), the collection of a body of men for compulsory military or other service in times of national emergency. The L. is usually restricted to a class, e.g. to men between certain ages, but in times of great danger a levée en masse may be enforced, when all able-bodied men are required to serve in person, either Levy, Amy (1861-89), a poet and

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novelist, published seve of good verse: Xantipi Barley of Barley of Stornoway Verse, 1881; A Minor P Stornoway Verse, 1884; and A London Plane Pop. (1911) 34,224.

Tree and other Poems, 1889. In Lewis, Colonel 1889 she brought out a novel, Reuben C.B., A.D.C. (b. 18 Sachs, a wonderful realistic study of soldier, born at middle-class Jewish life that brought Welshpool. He serve the proper with the life that Welsh was the state of the Reuber 1889. her into great disfavour with that

community. Lewald, Fanny (1811-87 man novelist, born at of a Jewish family; becar tian in 1829. In 1855 s Adolf Stahr, a Berlin critic.

travelled largely in Switzerland, Italy, France, and England previous to her marriage, and wrote records of her journeys in 1847 and 1852. She of her journeys in 1847 and 1852. Sho was an ardent champion of women's rights. Her novels include: Von Geschlecht zu Geschlecht, 1863-65, and Stella, 1884, which has been translated into English. See her Meine Lebensgeschichte, 1861-63.

Lewes, a municipal bor, and the cap. of the co. of Sussex, England, situated on the navigable Ouse, 44 m. S. of London. It is of creat historical

S. of London. It is of great historical importance, Henry III. having been imprisoned by Simon de Montfort in the castle, the ruins of which still exist. Market-day, Tuesday. Pop.

(1911) 10,972.

Lowes, George Henry (1817-78), an English author, born in London; began to contribute to the Edinburgh and Quarterly reviews in 1840, and continued to do so for many years. He published a Biographical History of Philosophica 1845 (2) of Philosophy in 1845-46, and in 1855 brought out his Life of Goethe, which is still the standard authority on the subject both in this country and in Germany. For a short time (1865-66) he was editor of the Fortnightly Re-view. In 1851 he met Mary Ann Evans, Evans, since famous under the pseudonym of George Eliot, with whom he lived until his death.

whom he lived until his death.
Lewis, or Lewis with Harris, the northermost and largest island of the Outer Hebrides, off the W. coast of Scotland, from which it is separated by the Minch, 30 m. wide. Length, N. to S., 60 m.; greatest breadth, 30 m.; area, 770 sq. m. Lochs Reasort and Seaforth divide it into Lewis on the N. and Harris on the S. The coast is much indented, having Loch Erisort and Broad Bay on the E., and Loch Roag on the W. while on the N. the headland of the Butt of Lewis rises to 80 ft. Much of the surface is rugged, and two peaks the surface is rugged, and two peaks Mealasyal and Ben More reach 1750 ft., but large tracts are swampy, and there is much peat and ancient forest

and domestic Barley and potatoes are Stornoway is the only town.

Lewis, Colonel David Francis, C.B., A.D.C. (b. 1855), an English soldier, born at Bultington, near Welshpool. He served with the Buffs in the Zulu War, being mentioned in despatches. In 1886 he joined the and commanded

in the Dongola made a brevet For his share in She the battles of Atbara and Om-

durman he received a C.B. and the thanks of both Houses of Parlia-ment. He was made a brevet colonel ment. He was made a prevet colonical in 1898, and took part in the operations resulting in the final defeat of the Khalifa. Subsequently, he has been as war correspondent to the Times with the French army round Casablanca, Morocco (1907), and with the Spanish army at Melilla

(1909).

Lewis, Sir George Cornewall, second Baronet (1806-63), an English statesman. In 1833 he was appointed assistant-commissioner to into the condition of the poor in Ire-land, and after that he sat on many boards until in 1847 he was returned to parliament in the Liberal interest as member for Herefordshire. In the same year he was appointed secretary same year he was appointed secretary to the Board of Control, and twelve months later was promoted Under-Secretary of State for the Home Department. From 1850-52 he occupied the position of Financial Secretary to the Treasury, and in 1855 (when he succeeded to the baronetcy) he because Chargellon of the Exchange came Chancellor of the Exchequer. He remained Chancellor until 1858, and in the following year became Home Secretary (1859-61), and then Secretary of State for War (1861-63), which latter office he accepted against He was editor of the his will. Edinburgh Review from 1852 until 1855, and he was the author of many books, the most valuable of which is Essays on the Administration of Great Britain from 1783 to 1830. His Lellers were edited by his brother Gilbert, who succeeded him in the baronetcy (1870).

Lewis, Sir George Henry (1833-1911), an English solicitor of Jewish extraction. He became a member of the firm Lewis and Lewis. soon distinguished himself as an advocate in the police court cases, and the reputation he obtained soon made the firm famous. In almost every important case he was consulted by one side or other, and he soon became remains. There are many Druidic more distinguished for the cases he remains and ruined forts. Chief in- kept out of court than those he dustries and ruined forts. dustries are cattle-breeding, fishing, fought. He was a personal friend of

and German

King Edward and a popular figure in | transaction took place. The principal general society. Before his death he carefully destroyed all the records of the many cases upon which he had

advised.

Lewis, Matthew Gregory (1775-1818), an English author, born in London; was attaché to the British at the Hague in 1794, the following year pubembassy and in lished The Monk, which attracted much attention, and made its author famous. He wrote plays and poems, but these did not achieve any lasting success, although Castle Spectre ran at Drury Lane for sixty nights; but it is as the author of The Monk, and by virtue of that book alone, that he has a niche in the annals of English litera-His Life and Correspondence was published in 1839.

Lewisham, a suburb of London, and a parl. and metropolitan bor. since 1885, situated in Kent, 6 m. S.S.E. of Charing Cross. Pop. (1911)

160,843.

Lewis River (U.S.A.), see SNAKE

RIVER. Lewiston: 1. A city of Androscoggin co., Maine, U.S.A., on Androscoggin R., opposite Auburn. The river here falls about 60 ft., affording water-power used in the manufacture 2. The c 26,247. Pennsylvania, U.S 44 m. N.W. of Ha steel works, blast f

and tanneries. 3. The cap, of Nez

U.S.A., at the confluence of Snake and Clearwater rivers, 30 m. S. of Moscow. Mining centre. Pop. (1910) 6043.

Lexicon, see DICTIONARY.

Lexington: 1. Cap. city of Fayette co., Kentucky, U.S.A., 75 m. S.E. of Louisville. There are manufactures of carriages, bagging, tobacco, liquors, city. Hemp is grown and coal mined in the district. Pop. (1910) 5242.

Lex Loci, a phrase used in private international law on the extraterri-torial application of legal rights (see Comity) to denote the principle in which the law of one country is applied to decide cases tried by the tribunals of another country. loci rei sita denotes the principle on hardy deciduous shirul with hand-which questions relating to real property are decided by the real property law of the place where the which are eaten by game birds. A property is stunte: 11. actus denotes a very law of the place where the law of the p loci rei sita denotes the principle on the law of the place where a legal;

species of the l.l. actus are the l.l. contractus, or the law of the place where a contract was made, or its terms finally agreed upon; l.l. delicti commissi, or law of the place where a civil injury was committed; l.l. solu-tionis, or law of the place where a contract was to be performed. The abbreviated form, i.l., is generally appropriated to the i.l. contractus. The general presumption is that in the absence of express terms to the contrary, a contract is to be performed at the place where it is made, and that its nature, the interpretation of its terms, and its validity generally, are to be determined by the laws of that place, and where, therefore, a place of performance is specified the law of that place will govern the interpretation and validity of the contract and not the lex contractus; and where the law of the place of performance and that of the place where the contract was entered into differ, it is presumed that the parties in-tended the contract to be governed by the principles of the former. the case of actions in English courts on bills of exchange, the net result of the Bills of Exchange Act, 1882, is that the law of the place where an of cottons and woollens. Pop. (1910) act is to be done is to govern the per-2. in the case and accepted in Germany, he drawing.

Lex Talionis, the law of retaliation. which finds expression in the Mosaic dispensation of an eye for an eye, etc. Something of the principle is to underlying Bentham's found Punishment. celebrated Theory of Punishment. Whether punishment in kind does most adequately fit the crime, on carriages, pagging, copacco, inquors, flour, etc., and the town contains theory of punishment is vindictive, Kentucky University. Pop. (1910) retributive, deterrent, morbid, or 35,099. 2. A tn. of Middlesex co., Massachusetts, U.S.A., 11 m. N.W. of Boston. Pop. (1910) 4918. 3. The retailation, or retaliatory acts correcap of Lafavette co., Missouri, U.S.A., on Missouri R., 38 m. N.E. of Kansas acts of another nation (called also city. Henry is grown and coal mined pends on whether one's individual theory of punishment is vindictive, acts of another nation (called also retorsion de droit), and (b) vindictive retaliation, or retorsio facti, i.c., belligerent acts in kind.

Leyburn, a par. and market in. of N. Riding of Yorkshire, England, 71 m. S.W. of Richmond. Pop. (1911)

6303.Ley Ces Teria, Formosa, Himalayan Honeysuckle, or Flowering Nutmeg, a Leyden, or Leiden, a city of Holland

on the Old Rhine, 6 m. from the sea. 17 m. from Rotterdam, and with lishments were very importar the end of the 15th century, Leyden baize and Leyden were familiar terms. These industries have declined, and linen and woollen manufactures are the most important, and there is also considerable transit trade in butter and cheese. But in spite of these industries, L. is essentially an academic town, and contains the most important university of Holland. It was founded in 1575 as a reward to the inhabitants for their courageous defence against the Spaniards, and was for a long time one of the most famous schools of Europe, numbering among its professors Salmasius and Grotius. Connected with the university is a library containing over 190,000 volumes, and some very important Oriental and Greek MSS.: portant Oriental and Greek MSS; the botauic garden, founded in 1587; the observatory (1860); the museum of natural history; and the Egyptian museum. Pop. 58,523.

Leyden, John (1775-1811), a poet, physician, and Orientalist, born at Denholm, Roxburghshire; licensed as a preader (1788). He contributed

as a preacher (1798). He contributed as a present (1783). He contributes several noteworthy poems and trans-lations to the Edinburgh Literary Magazine, and also contributed to Lewis' Tales of Wonder, 1801. In 1802 he assisted Scott in his Border Minstrelsy. In 1799 he had published a prose work, Discoveries of Europeans in Northern and Western Africa, in 1802 issued Scottish Descriptive Poems, and in 1803 Scenes of Infancy, descriptive of Tevioldale. In 1803 he went to India as assistantand Tayance went to make a sassistant-geon and naturalist on the Mysore and Travancore Survey; in 1806 settled at Calcutta; in 1807 pub-lished a valuable essay on Indo-Chinese, Indo-Persian, and Dekkan languages and literature; in 1809 became commissioner of the Court of Requests: in 1810 assay-master of the Mint at Calcutta, and in 1810 went to Java as interpreter to Lord Minto.

Loyden, Lucas van (1494-1533), see

LUCAS VAN LEYDEN.

Leydenberg (Transvaal, S. Africa), see LYDENBERG.

Leyden Jar, see Electricity-Electrostatics.

Leyds, Wilhelm Johannes (b. 1859), S. African statesman, born at tesman, born at In 1884 he be-Magelang, Java. hame Attorney-General in the S. frequently used in a general sense as African Republic; in 1888, State a term for an insult.

Sceretary; in 1889, Justice of Peace for the whole republic. He was re- 13 m. W. of Narbonne, and has

elected State Secretary in 1893 and 1897, and became Minister Plenidam and Amsterdam. It is an ancient town. Its weaving estab-

De rechtsgrond der

voor preventieve and The First An-nexation of the Transvaal, 1906. He is a Doctor at Law (cum lavde), and a commander of the Legion of Honour

and several foreign orders.

Leyland, a par. in the co. of Lancashire, England, 4½ m. S. of Preston. It has cotton mills, bleaching yards, and agricultural trade. Pop. (1911)

8090.

Leyland Steamship Line, a company with many trans-Atlantic services, which sails under the British flag as a member of

cantile Marine . origin in the Bibby line, an

it took its present name, Mr. F. R. Leyland, one of

ing control.

company at hi 1900 it amalgamatea with the west

India and Pacific Steam Navigation

Company.
Leys, Jean Auguste Henri, Baron (1815-69), a Belgian painter, born at Antwerp. His paintings chiefly represented to the painting of paintings. sent the dress and customs of ancient Flanders, and in his lifetime won for

him many public honours.

Leyte: 1. A prov. of the Philippines, including the island of Leyte and including the island of Leyte and smaller islands. Area 2896 sq. in. The island of Leyte is a detached peninsula of Samar, from which it is separated by the Strait of San The coasts are high and Juanico. there are good natural harbours. Abaçá, rice, and cocoa-nut oil are produced, and the mineral wealth includes gold, magnetite, and sulphur. Cap. Tacloban. Pop. 390,000. 2. Pueblo on N. coast of above island, near Leyte R., 30 m. N.W. of Tacloban. Pop. 7000.

Leyton, a par. and tn. of Essex, forming one of the north-eastern suburbs of London, situated on the l.b. of the Lea. The parish includes also the district of Leytonstone to the E. Roman remains have been found in the vicinity. Pop. (1911) 124,736. Leze - majesty (Norman - French,

from Lat. lasa majestas, high treason), in jurisprudence, refers to any crime committed against a sovereign power. Amongst the Romans it denoted political misdemeanours, acts of rebellion, and similar offences against the majesty of the empire. It is now

important distilleries and timber trade. Pop. 6300.

Lhasa, or Lhassa ('God's ground'), the cap. of Tibet. It is situated on a fertile plain, 11,830 ft. above the sealevel, and is girt about with barren hills. A little to the S. flows the Kyichu, which empties into the great Tsangpo, some 40 m. to the S.W. The lines of parallel of this 'Forbidden City' are 29° 39' N., and 91° 5' E. Until the British armed mission of 1904 advanced into the interior of Tibet for the purpose of arranging a commercial treaty, Europeans had not penetrated to L., which was, therefore, wrapped in a veil of impenetrable mystery and romance. A Chinese commandant of troops resides in the capital as a reminder of Chinese domination; otherwise the administration is in the hands of Tibetan officials. These latter bow to the authority of the Dalai Lama, who rules by virtue of his position as supreme head of the Lamaist Church. After the British expedition, this potentate fled to India, and at the close of 1911 was still a fugitive. Meanwhile the Chinese have deposed him and been roused, by what they regard as British trespass on their domain, into an effort to substantialise that Tibetan suzerainty which through lethargy and sloth has long since dwindled to a shadow. The actual population of L. is not much over 20,000, and is evidently dimindevotees from all parts and Tibet, and from the steppes, which reach Balkhash to Manchuria, and thus the | Sera, and Galdan.

traveller will find the public places thronged with Orientals of every diversity of feature, language, and dress, and will sometimes find whole families encamping in the streets, and the surrounding plateau strewn with the black tents of pilgrims from afar. The inhabitants include Tibetans, Chinese, Mongolians, Nepalese, and Ladakis. Most are engaged in and Ladakis. Most are engaged in weaving stuffs from native wools, but the potters also form a busy class, and the Nepalese are excellent gold and silver smiths. Commerce is largely concentrated in the hands of Mohammedans and foreigners. All roads, so runs the adage, 'lead to Lhasa,' and in December a steady stream of merchant pours along each stream of merchants pours along each goods, precious stones, and furniture.

Description .- From the W., Lhasa is approached through a picturesque gateway, which pierces a curtain of rock. When this is passed the splendid palace of the Dalai Lama comes into view. It is called the Potala, and is a majestic pile of red and white buildings, covering a hillside from top to bottom with its terraces, its buttressed battlements. and many-windowed walls. approached on either side by a broad, stone stairway, which zigzags up to the outward-sloping walls. The Jokhang, or great temple of the 'Jo,' or Buddha, which is the 'Lateran of Lamaism,' is situated in the marketplace, in the very heart of the city. Its exterior is unimpressive, 'a cluster of squat buildings with glittering gilded roofs,' but within are found jewelled lamps, highly-wrought gold and silver vessels, and richly-decorated chapels, images, and shrines. The private houses are mostly of sun-dried brick and clay, whitewash and bands of red and yellow entering largely into their colour scheme. The general appearance is one of utmost squalor; the avenues are full of filthy, hungry dogs, and pigs wander up and down the dirty streets. There are no pavements, nor drains, and common two-storied dwellings, whose lower halves are windowless, are begrimed with soot, and repulsive through their stench. L. is a refuge of monks and lamas. There are monasishing. But the fact that it is the teries within, but the more famous lie Mecca of Lamaism-a debased form some few miles distant. Of these of Buddhism-draws students and latter the most revered are Samye ldest convent of of the largest

in the world: History.—The Dalai Lamas did not make L. their Vatican till the 17th century. Since the days of Nagwang Lobzang, the fifth Dalai Lama (d 1681), his successors have dwelt in his Potala and have continued to exercise their religious tyranny over an ignorant and credulous people, who can have advanced little since the middle ages. L., however, has been the political capital since the days of King Srong-tsan-gampo, who flourished in the 7th century, and who first taught the Tibetans about Buddha. A monument recording a peace made on equal terms between the sovereign of Tibet and the Great T'ang, emperor of China, in 822, refers to the heyday of L.'s independance and prosperity. From that date the one of them into the metropolis, and prosperity. From that date the Some bring tea and silk stuffs from monarchy declined and yielded to a China; others silks and carpets from state of chaos, where central austiningfu. From Sikkim they carry thority was no longer respected, and rice and tobacco, and their freights overy town was the victim of its own of merchandise also include Russian despotic priests. Lherzolite, in petrology, a fine-

grained, dark green or black rock, in tropical forests. A well-known exoften granulitic, and consisting of ample may be found in the genus olivine, chrome-diopside, and enstatite, and accessory picotite or chromite, and belonging to the peridolites. First described from Lherz, in

the Pyrences. L'Hôpital, Guillaume-François Antoine (1661-1704), Marquis de Sainte-Mesme and Comte d'Entremont, a French mathematician, born in Paris: entered the army, but was obliged to leave it on account of

He had always studie with great zeal, and ir acquaintance of John whom he learnt the p

infinitesimal calculus. His works include *L'Analyse des infinimens petits*, 1693, the carliest systematical treatise on the differential calculus; Les Sections Coniques; Les Lieux Géométriques, La Construction des Une Equations, and Un Courbes Mechaniques. Theorie des

L'Hôpital, Michel de (c. 1504-73), a French statesman, born at Aigueperse, Auvergne; studied law at Toulouse and Padua; became an advo-cate in Paris in 1534. He rapidly rose to positions of honour, becoming successively auditor of the Rota at Rome, counsellor of the parliament of Paris, ambassador for Henry II. at the Council of Trent (1547-48), steward in the household of the Duchess of Barri, superintendent of finances (1554), member of the Council of State (1559), and Chancellor of France (1560). He resigned in 1568, his moderation having brought disfavour him into Catholies.

Li. a Chinese measure of length, just over one-third of an English mile. Also a small coin or weight of

about 0.583 grain.

Liability of Employers, see EM-

PLOYERS' LIABILITY.

Lia Fail, the 'stone of destiny,' or coronation stone. In Irish legend it is identified with the stone on which I dentified with the stone on which Jacob slept. The Dedannans, who had migrated from Greece to Scandinavia, Scotland, and finally Ireland, bas exports of the value of about 2000 ships per annum, and has exports of the value of about 23,000,000, while there is also a continuous it became the Lia Fail, the 'stone of destiny,' or stone of the Irish kings. land was called Inisfa

Fail). In 513 Fergus, the first Scottish king, removed it to Dunstafinage Castle in Scotland. It became the town has some importance as a Scottish coronation stone at Scone, and was brought to England and placed in Westminster Abbey by German chemist, born at Halle. He placed in James VI.

Libavius

Smilax.

beer

Liao-yang, a city of Manchuria, lies in the prov. of Shing-king, between Mukden and Port Arthur. It was the scene of a great Russian defeat in 1904, when it fell into the hands of the Japanese. Pop. (estimated) 100,000.

Libanius (c. 314-c. 392), a Greek sophist, born at Antioch; lived and

mainly in Constantinople, but 1 Athens and Antioch. In rehe was a pagan, and supported ews and plans of the Emperor with regard to the Christians, but in private life he was mild and

tolerant, and always maintained a friendly relation towards St. Basil and his pupils. His . etc., have

ols., 1791-. C. Wolf 97), and his letters by J. C. Wolf 8). See Lives by Petit (1866), (1738).

and Sievers (1868).

Libanon, or Libanus, sec LEBANON, MOUNT

Libation (Lat. libatio, a drink-offering), the wine or other liquid poured out in honour of a deity. In classic times public sacrifices were often accompanied by Ls.; the custom was also carried out privately, and the Romans at their meals made drink-offerings to the household gods. A similar practice prevailed among the Jews, who poured oil or wine upon their altars. With the Greeks. the L. sometimes consisted of milk, honey, etc.

Libau, Libava, or Leepaja, a scaport of Courland gov., Russia, on a bank separating Lake Libau from the Baltic Sea, 105 m. S.W. of Mitau. Its artificial harbour is almost ice free. L. is connected by rail with the าร์ภ

> rief gn

'ortified and used as a naval The chief industries are the

German chemist, born at Halle. He became professor of natural history Liakhov Islands, see New Siberia at Coburg. He was a pupil of Paracel-Islands.
Liand, or Liane (Fr. lier, to bind), treatises, notably Alchymia recognition and given generally to any nila, 1597. His most famous disclimbing or twining plant which grows or oxide of gold, by means of which Fife, 1907) to mean 'the power of he produced red glass. | Fife, 1907) to mean 'the power of initiative, the free play of intelligences

Libel, see DEFAMATION.

Libellatici, the name given to those Christians who, during the persecution of Decius (249-52 A.D.), evaded the edicts directed against their faith by obtaining libelli, or official statements that they had sacrificed to the Imperial gods.

Libellula, the typical genus of the family Libellulide, or dragon flies (q.v.). Named by Linneus from the supposed resemblance of the expanded

wings to an open book.

Liber, a term applied in botany to the inner bark of exogenous stems. It is synonymous with phlæm and

bast (q.v.).

Libel

Liber, in Roman mythology, the deity corresponding to the Dionysus. Originally the Italian god of the productivity of nature, and especially of the vine, so called from the unrestrained character of his worship, L. was identified with Dionysus when the Hellenic cult of Demeter spread to Italy. A temple was built to L., Libera, and Ceres near the Circus Flaminius, and a festival, called the 'Liberalia,' was held in Rome on March 17. In the rural parts a feast to L. and Libera (Gk. Persephone) was held at the time of the grape-harvest, the firstfruits of which were offered up, together with cakes of meal, honey, and oil. At the Liberalia the youths used to lay aside the toga pratexta and assume the toga libera, or virilis. Sec Ovid. Fasti, iii.

Liberalism. Modern L., according to its professed exponents, stands for such government by the people as, conformably to the organic concept of society, tends to a genuine social progress. It necessarily began as an emancipating and more or less destructive undercurrent, since a true democracy could hardly exist while caste barriers remained, while trade was shackled in the interests of monopolists and the king, and while the observance of religion was subjected to invidious and discriminating tests. Hence it is that L. and liberty are intimately bound up with one another, though the exact connotation of the latter term is notoriously difficult to determine. Unfettered liberty in a liberal sense cannot be suffered in condition of restraints within limits, such restraints being imposed on any one individual's action as are deemed instrumental in securing a like measure of liberty to all other persons. Liberty on its positive side has been defined by Mr. Asquith (speech at the conference of delegates

Fife, 1907) to mean 'the power of initiative, the free play of intelligences and wills, the right, so long as a man did not become a danger or a nuisance to the community, to use as he thought best the faculties of his nature. or his brain, and the opportunities of his life.' Some go further and postulate an equality of facilities of opportunity. But a consideration of the immutable foundations of human nature will readily convince all but those attached to at least one of the different Socialist schools of thought, of the impossibility of any such Utopian settlement of human inequalities. It is in this very attitude towards liberty, that L. and Socialism part company. L. is a practical empirical and no doubt somewhat

systematic and clean-cut, and that form of it which Professor Hobhouse calls 'official' Socialism as contradistinguished to that 'mechanical' Socialism which 'conceives a logically developed system of the control of industry by government, dreams of an ideal polity which, whatever other merits it may possess, is the very negation of liberty and democracy. It is not unjustly regarded by Professor Hobhouse as a creed which despises ideals of liberty on the confused assumption that liberty and competition are indistinguishable, and hence the Socialistic organisa-tion of the 'helpless and feeble race of mankind,' if it over became a political fact, would be conducted by an aristocracy of character and intellect working through mittees of union and progress, backed in the last resort by some one or more dominating master minds. on the other hand, is based on no such immoderate belief in the inherent superiority of any governing class or body; it is antagonistic to all 'standardisation,' and such Liberal-Socialism as may be said to exist must be democratic and must 'emerge from the efforts of society as a whole to secure a fuller measure of justice and a bette

aid . . . m free play in he really ca

liberal sense cannot be suffered in incompatible with this, whatever else any civilised state. It is essentially a it may be, is not L. as understood by condition of restraints within limits, those who practise it, or by those such restraints being imposed on any one individual's action as are the 'Superior Person' might well deemed instrumental in securing a indeed be that wild form of Radilike measure of liberty to all other calls menounced by Faguet, who persons. Liberty on its positive side has been defined by Mr. Asquith to high places of mean intellects. (speech at the conference of delegates Mr. Asquith publicly stated the of the Liberal Association of East

in much the same terms, and based in government, but an equal share the power of L. to combat such Socialism as spelt the negation of liberty upon the fact that the Liberal party was free and unfettered by entangling alliances with those interests, monopolies, classes, and privileges which with a kind of net-work of interdependence, covered the frame of society and made progress with social reforms seem Whether sometimes desperate.' sometimes desperate. Whether modern L truly connotes the above things can only depend upon the measures passed or proposed by Liberal statesmen, but before applying such a test, it is necessary to examine, however briefly and inadequately, not only the historical deadequatery, not only the historical development of L. as above stated, but to define more fully the paradoxical idea of liberty connoting in its various senses restraints imposed from without.

Before the dawn of anything approaching L., society was constituted on an authoritarian basis, with the king or other suprement.

with the king or other supreme magistrate exercising powers over and above the law, while a large part of the people were merely slaves, enjoying, therefore, no civic freedom of any kind. In England the king in feudal times regarded the whole country as his personal domain, to parcel out to whom and how he chose. But with the disappearance of serfdom and the migration of the peasant from the soil to the towns. begins the protest of the governed

er, and is the historic beginning of L. (Hobhouse). nssoric deginning of L. (Hobhouse). It is not too much to say that it has for conturies been a merely destructive and criticising influence, and that it is only within comparatively recent years that the path has been in any way cleared for constructive work. As to what arbitrary civil government was before Liberal ideas assailed it. may be readily informed. assailed it, may be readily inferred from Locke's treatise. The first step in civilised t law is as soon essentia is clear that only L. or some other

progressive political creed can have accomplished that initial step. But unless law is impartially applied, lever pass the Finance Bill of 1909, liberty is not guaranteed, whatever the ostensible form of government, election on the issue of the land for liberty implies equality. For the most part English people are equal their return to office was the Parliantheeye of occasional

point to a l

rich. Modern L. is not, however, Commons beyond doubt. satisfied that a genuino equality can exist until not only all have a share liberty in the sense of freedom from

therein. Hence the demand for a male adult suffrage bill or (with some) the extension of the franchise to women also. A similar striking to women also. A similar striking extension or carrying to their logical consequences of old principles has characterised what Professor Hobhouse styles 'fiscal liberty,' or the liberty which involved as its first realisation the acceptance by the king of the principle of 'no taxation without representation.' It has long been a constitutional dogma that only the Commons can intitate. only the Commons can initiate a money bill, and their control over such bills has for long been rendered such bills has for long been rendered more effective by the convention that the Upper House had no power to amend such a bill, though that house might reject the bill in toto. Modern L., however, demanded a 'broadening of the basis of taxation.' The reason was apparent. Principles of fiscal liberty were becoming meaningless if every frees budget meaningless if every fresh budget did no more than reshuffle existing duties, leaving possible sources of untold wealth inviolate in the interests of the land and liquor mono-polists. Modern L. regards governpolists. Modern L. regards govern-mental functions as going beyond the mere purpose of maintaining order, restraining men from violence, and securing person and property against foreign and domestic enemies. That narrow outlook was in accord with the laissez-faire doctrinaires, Cobden, Mill, and others, but with a more generous conception of governmental duty came the need for in-creased taxation, and with that need, creased taxation, and with that need, controversies as to its incidence. Prior to 1996 land was sacred, and when Mr. Lloyd George bade fair to adopt that part of the teaching of Henry George which postulates the state ownership of increment value (q.v.) of land, it was clear that the House of Lords would reject any budget containing taxes incorporating state with a wincing and was received. ing such a principle, and by no means certain that some sort of precedent could not be found for saying that a land tax per going beyond bound of an This attitude of the principl the knowledge that the Lords would

Act which inter alia fiscal liberty of the an the

inquisition into opinions is intimately | the market ' (Hobbouse). As to what woven. It may be unfair to religious tolerance entirely doubtless the intense feelin papacy which imbued all

Englishmen in times by no means remote, had much to do with the sentiment. But at the same time the Conservatism of to-day is peculiarly the political atmosphere in which the Church party thrives, a fact which partly expains the bitter hostility of the Opposition to those Education Bills which were designed to abolish religious teaching in state-aided schools, though in so far as the Opposition believed that the party in power were merely subsidising some particular Nonconformist creed at the expense of orthodoxy, that Opposition was, at least, in the interests of true freedom. On the larger question of liberty of thought generally, that freedom which in Faguet's words is negated by any inquisition which compels a man under a penalty to disclose opinions. The government in pursuance of its land tax schemes issued a form (popularly known as Form IV.), whic and void by the (inter alia) that owners under a it is curious to note that the Liberal

annual value of statement such

(sec LAND TAXES).

In his historical review of L., Professor Hobhouse shows how Liberal movement has often sought to dis-pense with general principles, a fact which explains its frequent inconsistencies, inconsistencies which, however, must inevitably exist in any upward or progressive movement acting partly through abolition and partly through compromise. Such theory as modern L. has is one inducted from the practical needs of the governed in preference to theory based on the empty forms of constitutional dogma. Many modern liberals, notably M. Faguet, abrogate speculative foundations altogether, and look solely to social utility. But modern L. requires something more coherent and scientific, and that something is to be sought in an ordered conception of the mutual interdependence of the State and the Individual. 'The individual owes the state the duty of inhis family, . . on the other side, society owes to him the means of maintaining a civilised standard of life, and this debt is not adequately discharged by leaving him to secure

wisely refrains from common happiness' theories, and postulates no more than the liberation as far as possible to all alike of living spiritual energy, that the common good in whatever it may consist may be realised in its fulness through

icial utility or the ulti-

of society as a whole, expounded by its lead-

the common will. Perhaps the greatest names in the past history of L. are those of Cobden and Bright, Mill and Gladstone. It is hardly necessary to mention that the great work of the Cobden school was the emancipation of foreign trade That school was prefrom tariffs. eminently practical, as might have been expected from men so strongly influenced by Benthamite teaching. But whereas Bentham sunk all con-

iental principles altogether, beyond ostulating the unrestrained action

the individual as the pivot upon amount to no more than an opinion which all progress turned, though it was admitted that the principles of free contract could not apply universally, e.g. to children. But as these exceptions to freedom of contract admit of endless extension, it is easy to see wherein lay the whole weakness of the doctrine of laissez-faire. Hence modern L., which does not contemplate as ethically right either the weighing-up of the happiness of one individual against that of another, nor the implications of the assumed free competition of isolated individuals, has at all points subjected the industrial system to close state surveillance. And herein lies the whole idea of modern L. in its relation to liberty, a term which is more fitly changed to the phrase 'social freedom '-a freedom 'to choose among those lines of activity which do not involve injury to others.' curtailment of the freedom of the few spells the freedom of the many. a result which is morally justifiable if dustriously working for himself and the community, as a whole, gains in his family, . . . on the other side, ultimate social harmony. Into all the ramifications of this underlying principle of L. it is impossible to enter in this article, but it is to be noted that the Cobden school, consuch wages as he can in the higgling of sistently with its theory of free con-

tract, advocated the removal of re-inquiry into the sphere of state comstrictions on the free exchange of land, an advocacy which has been carried by modern Liberals far beyond the bounds set by the disciples of Cob-den (see LAND; INCREMENT VALUE; LANDTAXES; LAND LAWS). A shallow kind of criticism may be prompted to inquire how far the freeing of land for small holdings and the absorption by the state of a fractional part of in-crement value is consistent with any theory of Individualism as opposed

who reprobates all action by Conservative governments directly or in-directly against monopoly can logic-ally repudiate the platitude that we are all necessarily Socialists to a certain extent.

Modern L. probably owes as much to Mill as to any other thinker, especially as it can refer such of its principles as are almost purely socialist to Mill's ideas of a co-operative organisation of society to secure the amelioration of the position of the wage-earners, and the extension of the franchise to the whole of the Gladstone was a Cobdenite in economics, and it is in relation to international dealings that he struck his original note. Gladstone's foreign policy was radically opposed to that of 'annexation,' and jingoism (q.v.), and with him that alone was internationally right which was according to the dictates of conscience, an ideal which contemplates every man as a citizen, not of a narrow circumscribed state, but rather as a citizen of a possible world-state. These views have found expression to-day in the grant of responsible government to S. Africa, and a greater measure of

The keynote of modern L. in the view of Professor Hobbouse lies in the phrase of the philosopher Green, that the common good to which each man's rights are subordinate is a good in which each man has a share, or, in other words, that a man finds his own good in the common good. This, says Professor Hobbouse, is the fundamental postulate of the organic view of society and implies that the full development of personality is practically possible not for one man only but for all members of a com-munity, and modern L. is concerned to show that this possible ethical harmony and social ideal are attainable by discipline and the all-round improvement of the conditions of life.

This conception involves an intricate value of land, the increase of liquor

pulsion, for it is axiomatic among Liberals that no force can compel growth. Professor Hobhouse thinks that compulsion is necessary wherever outward conformity is of value to the end of the general will. It is, however. at least doubtful whether compulsion and spontaneous growth are reconcilable. Force alone and not the common will has legalised trade unions, but no social reformer of today will deny the utility of such to Collectivism or one kind of Social- unions in the furtherance of indusconditions of life. Again, who is enough to determine when outconformity is of value. It seems a mere evasion to say that there is no true opposition between liberty as such and control as such, or that the 'true opposition is between the control that cramps the personal life and spiritual order, and the control that is aimed at securing the external and material conditions of their free development.' For the present distribution of property alone is sufficient to hamper personality and the spiritual

life, but no Liberal pretends that there

securing condition

convince tion of such conditions in favour of some will not involve a delimitation of the external conditions of the spiritual growth of another. How-ever that may be, the practical ex-pression of the various related prin-ciples of L. in the shape of legislation proves that, in the minds of latterday Liberals, L. is a living and co-herent political creed. The work of embodying the ideals of L. in Acts of Parliament was long postponed, and has been the work almost exclusively of the last few years, an effective check during the last twenty years of the 19th century to domestic legislation of the last was a single legislation. tion of all kinds being offered first by the Home Rule question, and later by the trumpet-call of Imperialism (q.v.). Liberals on the reaction of the electoral tide in their favour 1906 at once set to work to carry out their ideals, and the seven ensuing years saw the triumphant passing, inter alia, of Acts to secure a mini-mum wage in various trades, the establishment of labour exchanges, a scheme of national insurance, the provision of old age pensions, the to S. Africa, union funds

ortuous acts of their agents, facilities for the provision of small holdings and allotduties, and the virtual explosion of colony of Sierra Leone on the N.W., the inflated value of 'tied houses,' and the French colony of the Ivory the curtailment of the legislative Coast on the S.E. and extending power of the House of Lords, the some 300 m. along the northern coast consolidation of free trade principles, of Guinea, with the R. Mano on the the practical abolit. teaching in state-aic better housing of the and a number of democratic reforms.

Bibliography.—G. Lowes Dickinson, Liberty and Justice; Faguet, Liberalism; Hobbouse, Liberalism; Locke, On Civil Government: Bentham, Principles of Morals and Legis-Letins. lation: T. H. Green, Liberal Legisla-tion and Freedom of Contract; Hirst, The Manchester School; Mill, Prin-ciples of Political Economy; Liberty;

Representative Government.

Liberal League, a despairing off-shoot of the leaderless Liberal party, formed in 1901 when as yet that party was still 'in the wilderness.' Judged by the present accomplish-ments and tendencies of Liberalism (q.v.), the L. L. was distinctly retrogressive, for its principal founder, the Earl of Rosebery, in more or less definitively breaking away together with his associates, Sir Edward Grey and Mr. Asquith, from the more numerous body of Liberals in the tabernacle ' of Sir Henry Campbell-Bannerman, elected to expunge Home Rule from the party creed, and to side-track anything that militated side-track anything that militated against Liberal Imperialism. Late in 1905, however, when the want of solidarity in the Liberal Opposition appeared to have given way to a general agreement, Lord Rosebery, on the question of the party attitude towards Home Rule again becoming acute, once more declined to have anything to do with it, and left Sir Henry Campbell-Bannerman in sole commend of the party's future which command of the party's future, which now that the flower of the L. L. in response to Lord Rosebery's exhortations of loyalty to the official leader, Sir Henry, had thrown in their lot with the latter, was shortly destined to materialise in an era of almost unprecedented success. Shortly after this, when Lord Rosebery's Liberalism fell short of the progressive demands of the historic Budget of 1909, the L. L. was dissolved.

Unionists, see POLITICAL Liberal

PARTIES.

Liberi, Pietro (1605-87),called

Libe in W. British practise cannibalism and go naked. Africa

time the boundaries of the frontier have been marked ranco-Liberian treaties, and the present demarcation was fixed in 1911. The coast-line is very much indented, and rocks make it dangerous; the chief headlands are Cape Mount, 1050 ft. above sea-level, with the lagoon known as Fisherman Lake at its base, Cape Mesurado, 350 ft., and Cape Palmas, 200 ft. above the sea. Beyond the coast the surface is mountainous, some of the elevations reaching over 6000 ft. principal rivers, besides the three mentioned above, are the Cestos, of which the Nuon has now been discovered to be the upper course (1908), the St. John, and the St. Paul. Most of these have rapids or falls which prevent navigation, the Kavalli being the only one serviceable. The hinterland is composed of vast forests, the Nidi forest possessing Funtumia rubber trees. Many rare species of animals are found, and the vegetation is unusually rich and beautiful. So far little has been done with regard to the mineral wealth of the district, there are indications of gold in most of the rivers, also of bitumen; sap-phires have been found, corundum

and iron are also found.

In 1821 the American Colonisation Society selected Cape Mesurado to send the American freed negro slaves to, and from that time onward they continued to be sent there. The American colony was founded by Jehudi Ashmun between 1822-28, the name L. being given it in 1824 by the Rev. R. R. Gurley. Until 1857 there were two republics, L. and Maryland. Troubles on the frontier led eventually to an American Commission being sent to L. by President Roosevelt in 1909, and this resulted in America taking over the finances, military organisation, and the boundary question. The republic is now governed by a president, elected for four years, eight senators, and thirteen representatives. There are local magistrates, courts of common pleas, quarterly courts (five), and a supreme vanio. His paintings exhibit great variety of subjects and treatment, the most notable of them being 'The gauge spoken is English. There is a Battle of the Dardanelles,' 'Venus,' large native population (2.000 000) which includes the suprementation of the properties of the properti large native population (2,000,000) which includes the Kru and Gora tribes. Some of the forest tribes still

being met with in many places; lead

They are mostly handsome and of fine! physique. Many of them are Moham-medans. The area is 41,000 sq. m., and the Americo-Liberian 15,000, besides about 40,000 civilised and Christianised negroes.

Sce Sir Harry Johnston's Liberia (2 vols., London), 1906; and Maurice Delafosse, Vocabulaires comparatifs de plus de 60 langues et dialectes parlé à la côte d'Ivoire et dans la région

limitrophe, 1904.

Liberius, St. (352-366), pope, who succeeded Julius I. He was banished to Thrace (355) by Emperor Constantius for refusing to excommunicate Athanasius. About 357 he submitted, and was allowed to return to Rome and share office with Felix, who soon resigned. See for some of L.'s correspondence, Constant's Epistola Romanorum Pontificum, 1821; sce also Döllinger's Papstfabeln, 1890.

Liber Regis (Valor Ecclesiasticus), a book compiled in 1535 on the eve of the Reformation which contains an account of the valuation of the whole ecclesiastical property of England and Wales. The authorisation for the work was an Act providing for the payment to the king as the supreme head of the Church of England, not only of first-fruits and benefices, but of one-tenth of the entire property of the Church. An abridgment of this record entitled Liber Valorum, was the foundation of the Liber Regis, vel Thesaurus Rerum Ecclesiasticarum (1786), by one John Bacon, receiver of first-fruits. Queen Anne by giving up first-fruits and tenths to trustees. who were empowered to administer them for the benefit of the poorer clergy, thereby made them part of the fund that has ever since been known as Queen Anne's Bounty.

Libertad, or La Libertad, a dept. in the S.W. of San Salvador, and also the chief scaport of that dept. The Pacific Ocean forms the S. boundary of the colony, which is very mountainous. There are crops of rice, coffee, sugar, etc., which constitute a considerable export trade; and silver and gold mines are also found. La and gold mines are also found. La Libertad, the port, is 16 m. S.S.W. of Nueva San Salvador. Pop. of dept.,

49,000; of tn., 2000. Liberté, a French battleship of the first class, was launched in 1905, and

has a displacement of 11,865 tons.
Liberties, The Upper and Lower,
two electoral divisions of Ireland, in the co. and dist. of Londonderry.

Liberton, a vil. 2½ m. S.S.E. of Edinburgh. It has an ancient parish church and convent. In the neighcoal mines.

Sir enby,

and dress fabric firm of Liberty & Co., Ltd., born in Chesham, Bucks. He is a director of the British Produce Supply Association; a vice-president of the Silk Association of Great Britain and Ireland; and chairman of the Advisory Committee of the Royal School of Art Needlework. He has travelled in the Far East, and has been awarded medals for papers read before the Society of Arts in 1890 and 1900. He is specially interested in the development of the decorative arts as applied to furniture and costume, and the advancement of British silk and other home industries. He founded the firm of Liberty & Co., Ltd., in 1879.

Liberty, Equality, Fraternity (Fr.

liberté, of the the fi adopte faith, of the

centur merely equality for rich and poor in class privileges. A book with this title was published by Sir J. F. Stephen in 1873. the eyes of the law and the absence of

Liberty of the Press, see PRESS,

FREEDOM OF.

Liberum Veto, became an integral part of the Polish constitution at some time in the earlier half of the 17th century. It was adopted in the diet by the 'szlachta,' or gentry. The political equality of all Polish gentlemen was taken for granted, and accordingly any one of them might say 'nie pozwalam' (I disapprove) to any measure introduced into the diet, and thus compass the diet's dissolution; for having assumed the principle of absolute equality it followed that every bill must receive unanimous support before passing into law. The L. V. was first used in 1652, and was finally abolished by the revolution of 1791.

Libidibi, see Divi Divi.

Libitina, a Roman goddess who presided over funeral ceremonies, and her temple at Rome contained all the symbols of mourning. The door through which wounded gladiators were carried from the arena was called by the Romans the Gateway of Libertina.

Libmanan, a pueblo of the Philippine Is., and is situated in the Camarines prov., Luzon, on the Vicol.

Pop. 17,500.

Libourne, a tn. and river port of Gironde dept. France, at the confluence of the Dordogne and the Isle, 17 m. E.N.E. of Bordeaux. One of the ancient free towns founded by the English (c. 1269), it is a thriving city. (b. 1843), founder of the furnishing Manufs. include woollens and mili-

exported. Pop. 19,500. Libra (the Balance), the seventh sign of the zodiac. In the older Greek writers the Scorpion occupies two

Libra

constellations of the zodiac, or rather the body of the animal occupies one, and the claws, chelæ (χηλαί), another. Though the chelæ were certainly a part of the Scorpion, yet they are often mentioned (as by Aratus, for instance) by themselves, as if they formed a distinct constellation. The word chela had several significations; so that it may have been by simple mistranslation that the Romans mistranslation that the Romans (according to Hyginus, Virgil, etc.) gave the name of L. to the part of the heavens in question, and drew back the claws of the Scorpion to make room for the scales. L. is surrounded by Scorpius, Ophiuchus, Virgo, Centaurus, and Lupus, and contains the

well-known globular cluster Messier 5

which has as many as eighty-five short-period variables.

Libraries. The earliest collection of written works, apart from what we may call 'books,' appear to have been the official preservation of government and administrative records or archives, whose remains, found in ancient Babylonia, Egypt, and Crete, have proved of such inestimable value to the archeologist. Apart from their archives, Assyria, in the great library of Assurand scientific L. attached to the temples, afford examples of L. of the ancient world was that of Alexandria, where there were two branches, one in the Brucheion, originally the larger L., destroyed by fire accidentally when Julius Cæsar burnt the fleet; the other in the Serapeum, which subsequently became the chief L. This was the great collection said to have been destroyed by the Saracens (640 A.D.), but probably not many of the treasures had survived the destruction of the Brucheion in 273 or the pillaging of the Serapeum by the Christians in 390. The most famous of private L. was that of Aristotle, said to have ultimately found its way

tary clothing; wine and brandy are which was greatly enlarged, and from which much of ancient Greek learning came to the West after the cap-

ture of the city by the Turks.

During the early middle ages the collection and keeping of books and the maintenance of learning fell to the finitheenance of rearring ferr to the Church and to the monasteries, and the L. of the Benedictines, always renowned for their love of books, as at St. Gall, St. Henry, etc., were famous. The catalogues of many of these monastic L. have been pre-served; thus we know that the monastery of Christ Church, Canter-bury, had during the 13th and 14th centuries a L. containing some 3000 (For the management and works. arrangement of the early L., see J. Willis Clark, The Care of Books, and Abbot Gasquet, The Old English Bible.) An idea of the old form of L. may be seen still at Merton College, Oxford, at Cesena in N. Italy, and in the Laurentian Library at Florence. With the invention of printing the modern L. may be regarded as established. All great L. preserve among their most precious treasures the MS. relics of the past, and the incunabula, or early printed books, not only command enormous prices when any come into the public market, but are the object of the scholar's research for cataloguing and historical purposes. L. are, however, now chiefly regarded from the side of practical utility, and their system of arrangement, cataloguing, based on scientific principles by which their resources can be most readily available to the ever-growing needs of readers and students of every kind. Many of the great L. of the world receive separate articles in this encyclopædia; it must suffice to give a brief account under various countries of the most noteworthy, and to conclude with a reference to the public or free L. movement which has placed the learning of the past and present at the disposal of all classes. The United Kingdom .- The L. of

the British Museum dates from the acquirement of Sir Hans Sloane's collection in 1753, to which was added the great Cotton collection, acquired to Rome in the time of Sulla. Æmilius by the nation in 1700, and the L. of the kings of England, given in 1757 by George II., together with the inby George II., together with the invaluable right, shared by the Bodleian and other L., to a copy of every book entered at Stationers' Hall. In Octavian and Palatine. Of those famous imperial L. was the Ulpian, founded by Trajan, which, housed in the baths of Diocletian, was destroyed by fire under Commodus. The great collection at Constantinople made by Constantine, Julian, most famous of its librarians, Sir and Theodosius formed a nucleus Anthony Panizzi, the L. boasts of over 2,000,000 printed volumes and over 50,000 MSS. It takes rank as the greatest of all L., and perhaps chiefly for the reason that in every language its collection of books is the best outside its native country. The great circular reading-room, designed by Panizzi, was opened in 1857. Other great London L. are the Patent Office Library, the National Art and Science Libraries at South Kensington, the Guildhall Library, and, perhaps most useful of all, the London Library, founded in 1841, open to subscribers, which, unlike the others, issues books to borrowers. Its splendid collection of books, its well-arranged catalogues, and small subscription, make it an essential to all students and readers. Outside London are the National Library of don are the National Library of Dublin and the Museum of Science and Art in Edinburgh among state public L. Next in rank and importance is the Bodleian Library at Oxford, opened by Sir Thomas Bodley in 1602. It obtained the right to a copy of every book entered at Stationers' Hall in 1610. The Universtty Library at Cambridge dates from the 15th century; its first great bene-faction was in 1475, when the Arch-bishop of York, Thomas Scott, erected a building which housed it until 1755. The University Library of Edinburgh dates from the 16th century, and that of Trinity College, Dublin, from the beginning of the 17th century. There are many fine endowed L., the Chetham Library at Manchester Chomain Library at Manchester taking priority as perhaps the earliest (1653) free L. in England; the John Rylands Library, founded by Mrs. Rylands in memory of her husband, contains a wonderful collection of incunabula, the basis of which was the great Althorp Library collected by Earl Spencer. The L. of the various learned and other societies are in many cases of high value; perhaps that of the Faculty of Advocates, Ediphyrib is the most perhaps Edinburgh, is the most notable for its general character and valuable col-lections.

United States.—The national L. is the Library of Congress at Washington, first established in 1800, burned in the Capitol in 1814, burned again in 1851, and now housed in the most magnificent L. buildings in the world, opened in 1897

opened in 189 Smithsonian

1866. The earl of Pennsylvania and New Hampshire (c. 1777), now every state possesses on, the largest being at Albany for New York State. Harvard (1638) and Yale (1701) possess magnificent university L., as do all the great university L. as do all the great university and colleges, though of more modern standing. The great feature archives also with certain reserva-

of American L. is the growth, wealth, and equipment of the municipal system; every town practically possesses one on a large scale, dealing with ample funds. It must suffice to mention the great L. of New York City and Boston. See New York. Austria - Hungary.—The Imperial Public Library at Vienna is said to date from 1440, and to have been founded by the Emperor Frederick III. It contains a portion of a

Austria - Hungary.—The Imperial Public Library at Vienna is said to date from 1440, and to have been founded by the Emperor Frederick III. It contains a portion of a famous medieval collection, that of Matthews Corvinus of Hungary. Its printed volumes number over 1,000,000, with nearly 30,000 MSS. It also lends volumes to borrowers.

France.—The Bibliothèque Nationals in the Na

France.—The Bibliothèque Nationale is one of the great L. of the world and has of all great L. the longest history, though it may not be true that it dates from the collections of Charlemagne or of St. Louis. What is certain is that it contains a very large number of the collections of the French kings, and that it represents the Bibliothèque du Roi of times anterior to the French Revolution. It contains upwards of 3,000,000 volumes, a magnificent collection of MSS., prints, medals, and maps. Other great L. are those of the Arsenal, confiscated at the Revolution, the Mazarin Library, and that of the University, originally that of the Sorbonne, founded in 1762.

Germany.—Berlin possesses in the Royal Library, founded by Frederick William, the Great Elector, in 1661, one of the largest L. of the world. It possesses nearly 1,500,000 printed volumes and over 30,000 MSS. The new building housing this was opened in 1909. It is remarkable for its ready access to the public and its lending powers to borrowers. Other great state L. are those at Munich, Dresden, Leipzig, Stuttgart, etc., while the university and municipal L. are exceedingly numerous, well managed and equipped with ample funds.

Italy.—Chief in antiquity, in weath of MSS, and printed rarities, and of inexhaustible treasures of archives and historical and other works is the Library of the Vatican at Rome. Its early history is broken by the removal of the popes with the books to Avignon, and its modern history dates back to the Renaissance popes, of whom may be mentioned Nicholas V., Sixtus IV., and Sixtus V., the founder of the present building in 158S. Printed books are said to number 400,000, MSS, nearly 40,000, of which the famous Codex Vaticanus of the Bible stands first, together with the great MSS, of Virgil, Terence, etc. The L. is open to the public, and since the papacy of Leo XIII. the

valuable contents, the Vatican is succeeded in importance by the Biblioteca Mediceo Laurenziana at Florence, containing the collections of Cosimo, Pietro de' Medici, and Lorenzo the Magnificent. It was opened to the public in 1571, and contains some of the most precious classical MSS, in existence, including over 700 dating from before the 11th century, including a 4th - century Virgil and a 10th century Homer. The largest modern L. in Italy is the Nazionale Centrale Vittorio Emmanuele at Rome, founded 1875, with nearly 1.000.000 volumes. Other important national or municipal L. are at Naples, Florence, Milan, etc., while all over Italy are numerous ancient L., containing great treasures, such as the specimens of early printing at Subjaco, the famous Biblioteca Ambrosiana at Milan, the great collection of archives, bulls, papal briefs, charters, etc., at Monte Cassino.

Spain.—The Biblioteca Nacional. Madrid, represents the former royal and contains some 600,000 volumes, with 30,000 MSS. The Escorial Library, once one of the greatest in Europe, suffered from fire and robbery after the French invasion of

1808.

Netherlands. - The Belgian chief state L. is the Bibliothèque Royale, Brussels, of which the nucleus was the L. of the Dukes of Burgundy and the archives of the Spanish occupa-tion. The chief L. of Holland is the royal library, Koninkliyke Biblio-theek, at the Hague, founded in 1798. The L. of the academy at Leyden. founded in 1575, is one of the most famous early L., and there are also great L. of the universities of Utrecht

(1582) and Amsterdam (1578).

Russia.—Of the great L. of the world the Imperial Public Library at St. Petersburg is one. It contains nearly 2,000,000 volumes and 34,000 MSS., the chief of which is the Codex Sinaiticus of the Bible, brought from Mt. Sinai by Fischendorf in 1859.

The public library movement .-The establishment of L. free and open to all ratepayers by municipalities out of funds provided by the rates, was first authorised by the Public Libraries (England) Act, 1850, largely due to the effort of William Ewart, M.P. for Dumfries. The benefits were extended to Ireland in 1853. At first the rate was limited to 1d. in the £. but it was extended to 1d. in 1855. The right to establish was and is permissive and not compulsory, and until 1803 the power of adopting the Act was left to a vote of the rate-payers: now, except in rural parishes,

tions. Historically, and also for its ity. Except in certain places, where valuable contents, the Vatican is suc-exceptional powers have been granted, exceptional powers have been granted, as in Birmingham, the 1d. rate is the limit of the funds to be disposed of, a fact which keeps many municipal L. far below their proper and useful standard. Public L. generally contain a reference L.. to which free access is given but no books are lent. a newspaper and magazine room, and a lending L., from which ratepayers may borrow books. Mr. Andrew Carnegie gave a great encouragement to the public L. movement by his presentation of the buildings to many municipalities adopting the Acts. His munificence in the U.S.A. has perhaps been of greater value where the money limitation of the alone, with the cost of upkeep and salary of officials, has in only too many cases left practically little or

nothing for the purchase of books.

Libration. This term is applied to a small irregularity, compounded of the moon's rotation round her axis and her orbital motion, by means of which her visible hemisphere is not always quite the same. The mean revolution of the moon round her axis is the same period of time as her mean revolution in her orbit. If both motions were equable, the moon would always present the same face to a spectator placed at the centre of the earth, on condition that the plane of her equator passed through the centre of the earth. None of these conditions being exactly fulfilled, and variations being small periodic, the consequence is that a small portion of the moon's surface in the eastern and western edges, and also in the northern and southern, is alternately visible and invisible. The maximum L. longitudinally is a little short of 6° 50′ and latitudinally is as much as 7° 53′.

Libretto (diminutive of It. libro, a book), in music, the book of words of an opera. In many cases, particularly in operas of the Italian school. where vocalisation was carried to the highest pitch of perfection, the L. is entirely subordinated to and moulded by the exigencies of operatic art, and is often little more than doggerel. In the French school, where the de-clamatory principle was insisted upon, the national dramatic instinct has resulted in the production of dignified libretti, such as those of Lully's, Rameau's, and characoneras. The L. has various characoneras. teristics which distinguish it from the ordinary drama, such as the use of the aria and the duet in place of dialogue.

the power rests with the local author- W. Africa, is situated on the N. shore

Libreville, a tn. of French Congo.

of the Gabun estuary. It is the capital of the French settlements in the Gulf

of Guinea. Pop. 1500.

Libri-Carrucci, Guglielmo Brutus Icilius Timoleon, Count (1803-69), a mathematician and bibliographer, native of Florence. He had been pro-fessor of mathematics at the University of Pisa since the age of twenty. when, being implicated in the Liberal political agitation of 1830, he had to fly to France, where Arago aided him. He was member of the Academy of Sciences, professor at the Sorbonne, chief inspector of Public Instruction, and director of the state libraries, but, accused of taking books and MSS. from various libraries for his own collection, he had to take refuge in England. Libri died at Ficsole. He wrote Histoire des Sciences Mathémutiques en Italie, and Histoire de Mathématique et de Physique. Libya, and Libyan Desert, the ancient Greek, name for the northern

part of Africa, including Egypt; Homer mentions the land as very fertile. In Roman history the name only applied to the region now known as the Libyan Desert, a huge plateau rising gradually to 1000 ft. above the Nile in stony terraces. There are several famous oases, the largest being Kharga, easy of access from Abydos and Thebes; others are Dakel, Farafra, Baharieh, and Siwah; they are well supplied with springs, and are exceedingly fertile; their occupation goes back to remote antiquity. Further to the W. the Libyan Desert mingles with the trackless silence of the Sahara.

Licata, or Alicata, a tn. of Sicily at the mouth of the Salso, 24 m. S.E. by F. from Girgenti. It exports large quantities of sulphur, fish, country produce, etc. Pop. 22,031.

without insects parasitic Lice, parasitic insects without wings, including all the Aptera, with the exception of the fleas. Among the distinct groups are human L. (Pediculidae), true L. (Hamelopinus), bird L. (Mallophaga) and epidermis eaters (Trichodectes). The female L. produce eggs, popularly called nits, which are often beautifully sculpwhich are often occurrence. tured objects and are attached to the young are hatched in five or six days, and in less than three weeks are capable of reproduction. Their presence on mammals in excessive numbers causes the disease called Phthi-They flourish most when the riasis. host is in an unhealthy, low, or dirty condition.

Licences and Licensing Law. The

accomplishing this purpose. e.g. in Russia the state has a monopoly of the liquor trade, and so takes the profits for public purposes. In Eng-land in exchange for the state guarantee of a properly conducted and licensed liquor business, various fees must be paid, so that the net result is not radically dissimilar. Some states. however, adopt the principle of prohibition (see LOCAL OPTION). prohibition takes the form of a general or local veto on the sale of liquor, the or local veto on the sale of liquor, the latter being by far the more usual method followed. General prohibition is in force in Maine in the U.S.A., but the other New England states have abandoned the experiment. Local prohibition is, however, very prevalent in the U.S.A., Canada, and Australia. But in Europe, where intended. tralia; but in Europe, where intemperance is undoubtedly less marked than in the New World, it obtains only Before 1910

icts were in licated, and Act of 1910 STATUTES) has in a manner removed some of the

anomalies it has incorporated most of the heterogeneous provisions of the repeated statutes. This Act, together with the provisions in the Finance Act creating higher excise duties, was the legislative answer to the temperance agitation of the preceding years. Opinion differs as to whether there was a general decline in drunkenness prior to 1910, and whether, if not, people can be made more temperate by Act of Parliament. On the whole it is probable that drunkenness has steadily decreased throughout the whole of last century, great and the sold. increase have no

do not and cannot show whether the consumption per head is higher than in any previous period. The Act of 1910 is comprehensive, but contains nothing approaching a solution of the question. In rural districts, however, experience shows that the high duties have had a marked prohibitive effect on the amount of liquor sold. The Act does not apply to Scotland or Ireland, but the law applicable to those countries

practically the same in principle. The gist of English licensing law is the making it difficult to sell liquor, by granting licences (generally speaking) only to persons who have obtained a justices' licence authorising them to noid an excise licence. Justices' licences are available only for one English licensing code is a body of year, and must therefore, be annulaws, the primary object of which is ally renewed at the licensing sessions. the control of the liquor traffic. Other There is no right of appeal from a countries choose different methods of refusal, except in the case of old

seditious meetings to be

premises, selling or expc he is not authorised to sell, permitting an increase of 376 over the previous gaming, or allowing bad characters to year. resort to the house, and other serious It is a fundamental condition of the grant of a licence that and during certain hours. In London the week-day hours are generally 5 a.m. to 12.30 p.m., and 12 p.m. on Saturdays; in large towns 6 a.m. to 11 p.m.; all other places 6 a.m. to 10 p.m. On Sundays, London, 1 p.m. to 3 p.m., and 6 p.m. to 11 p.m.; all other places, 12.30 p.m. or 1 p.m. to 2.30 p.m. or 3 p.m.; and 6 p.m. to 10 p.m. Liquor may be sold during prohibited hours to a bona fide traveller, i.e. a person who lodged during the preceding night at a place miles distant from the licensed premises. (This does not apply to wholesale transactions.) No sale on Sunday is allowed at all in Scotland. Wales, and in the greater part of Ire-land. There are a number of things prohibited in licensed premises, and the police may enter at any time to prevent and detect such infractions of the law. Inter alia, the licenceholder may not permit children under fourteen to be in a bar (but the normal result seems to be that they are found outside on the doorstep or pavement, where drunkards congregate as freely as inside the tap-room), nor sell liquor to habitual drunkards. or to children under fourteen, for consumption on the premises, or at all except in corked and sealed vessels; nor permit disorder or drunkenness, nor bribe the police, or harbour bad characters. The fines for selling in contravention of the terms of the licence will be found below. Imprisonrnative, licence,

licence again. There are also a number of regulations as to the registration of clubs. The secretary of a club (and 'club' in the Act is used in the popular sense), and the proprietor of a proprietary club that has no secretary, must register the following particulars about the club: name, objects, address, name of secretary, number of members, club rules as to election of members, terms of subscription, entrance fee, hours, and important alteration in practice was manner of altering rules. A club once effected by the Act in the matter of registered can be struck off by an grants of fresh licences as distinct

licences, when an appeal lies to quarter sessions. A licence may be forfeited by the holder if convicted of tary for omitting to make a return, feited by the holder is convicted of larger and a fine up to £50, and a longer pertial barhousing thiere. return. In January 7912 registered clubs

Practically the whole law as to the acquisition, retention, and forfeiture of the right to sell to the public inliquor be sold only upon the premises toxicating liquors, subject to a payment to the state in the form of excise licence duty, and the performance of the various conditions, e.g. as to closing, attached to the grant of the licence, is now contained in the Licensing (Consolidation) Act, 1910. Finance Act, 1910, substituted for the then existing excise licences a comprehensive list of 'excise liquor divided into manufactures licences, wholesale dealers', retailers' (on and off), passenger vessel, railway restaurant, and occasional (i.e. to sell elsewhere than on licensed premises) licences, together with a new scale of duties. Generally speaking, a retailer cannot obtain an excise licence until he has been granted a licence by the justices at brewster sessions, i.e. the special annual meetings of the local justices held for the purpose of granting or renewing licences, authorising the grant to him of an excise licence; but there are two exceptions to this rule, viz. where the holder of a spirit dealer's licence, or a wine dealer's licence, for premises which are exclusively used for the sale of intoxicating liquors, or of such liquors and mineral waters, or other non-intoxicating drinks, and which have no with internal communication premises of any person who is carrying on any other trade or business, takes out a retailer's off-licence for the sale of spirits, or a similar licence for the sale of wine. As regards a county which is divided into petty sessional divisions, the licensing authority for each division is the justices acting in and for each petty or unhold a sessional division. Where a county is a num-not so divided, the whole county egistra- (excluding the area of any borough Where a county is having a separate commission of the peace) is deemed to be a petty sessional division for the purposes of the law, relating to justices' licences and unty

committee or the borough justices. order of a court of summary jurisdic- from renewals. Where a renewal only tion. A fine up to £20, and imprison- is asked for the justices cannot, as a

and

general rule, entertain any objection to the renewal, e.g. on the ground of the character of the proposed licensee, unless written notice of an intention to oppose the renewal has been served. seven days before the sessions, on the

terms th newal is

if premises had had at any time, however remote, a licence attached to them, the grant of a similar licence, in respect of those premises, was inter-preted to be a renewal, and not a new licence. But now the grant can only be treated as a renewal where a similar licence is actually in force in respect of the premises at the date of the application, or was in force at the date of the general annual licensing meeting in the previous year. applicant for a manufacturer's or

Customs and Excise without previous authority from the justices—theatres, passenger vessels, railway restaurant cars, and naval and military canteens; while occasional licences are authorised by consent of a petty sessional court. The universities of Oxford and Cambridge, and the corporation of St. Albans, and the Vintners' Company enjoy the privilege of granting licences to hold excise licences without magisterial authori-

wholesale deal duced by the

factory, or elsowhere, by the manufacturer, or a servant or agent of his, if the liquor is supplied to the purchaser direct from the premises of manufacture. The penalty for manufacturing spirits, beer, or sweets, without a licence is £500. A distiller of spirits must take out a licence annually. The duty where the number of gallons computed at proof of ber of gallons computed at proof of spirits distilled during the preceding year (i.e. ending June 30) does not exceed 50,000 gallons, is £10; where the number of gallons exceeds 50,000, then £10 for the first 50,000, and £10 for every further 25,000 gallons, or fraction of 25,000. 'Spirits' means the form of 25,000. 'Spirits' means the form of 25,000. barrels brewed during the preceding on-licence

year does not exceed 100 barrels, and where the number exceeds 100 barrels. £1 for the first 100, and 12s. for every additional 50, or part of 50, barrels.

Beer' includes ale, porter, spruce
beer, black beer, and any liquor made or sold as a description of, or as a substitute for, beer, and which, on analysis, yields more than 2 ozs, of proof spirit. It is to be noted that where the brewer of beer does not brew for sale, the duty is 4s. only; but if he be an occupier of a house of an annual value of over £10, but not over £15, and brews solely for domestic use, the duty will be 9s. The occupier of a house of an aunual value not exceeding £8 may brew beer solely for his own domestic use, without a licence at all. The duty on a 'sweets' (liquor made from fruit and sugar that has undergone a process of fermentation; it includes British wines. 'made wines,' and metheglin) manufacturer's licence is five guineas. Licences for wholesale dealers in Licences for wholesale dealers in spirits, beer, wine, or sweets, must be taken out annually, the duties being fifteen guineas, ten guineas, and five guineas respectively, with a reduction where a retail licence is also taken out. The penalty for dealing without a licence is £100. The spirit licence authorises the sale at any one time to one person of spirits in any quantity not less than 2 gallons, or one dozen reputed quart bottles; the beer licence, 41 gallons, or two dozen quart bottles; the wine and sweets, either spirits, beer, or sweets, and bottlesin each case. Retailers' licences expire on September 30 each year, are either on-licences in for such a licence authorises bestless? Such a licence authorises, besides the liquor for consumption either on or manufacture of off the premises, or off-licences, for off the premises, or off-licences, for consumption off the premises only. The term 'publican's licence' is exclusively appropriated to a retailer's on-licence for spirits, and the expression 'fully licensed premises' means premises to which a publican's licence is attached. A person who holds a publican's licence ' may sell by retail beer, cider, wine, and sweets, as well as spirits, without taking out any further retailer's licence. The duty on a publican's licence is equal to half. and that on a beer or beerhouselicence to one-third, the annual value of the licensed premises, subject to certain minimum duties. Cider and sweets on-licence duties are at one-half the rate of wine on-licences. The penalty for selling by retail without a licence any fermented liquor containing a is either £50, or a sum equal to treble greater proportion than 40 per cent. the full duty. The various retail of proof spirit. An annual licence of on-licences authorise sales in the £15 15s, must also be taken out by a same quantities as for wholesale rectifier or compounder of spirits. Licences, with the words not exceeding in place of 'not less than 'in licence is £1. Where the number of each case. The holder of a beer licence is £1. Where the number of each case. cannot obtain

Holders of sprits, wine, or sweets. six-day licences, or early closing licences, pay only six-sevenths of the duty for a full licence. The duties cider and sweets off-licences None of the is. £2 in each case. above off-licences can be granted to the holder of a retail on-licence, if the off-licence authorises the sale of any liquor to be consumed off the premises which the holder of such onlicence could not sell under his onlicence. £10 is the duty for a passenger vessel licence, which licence is to be taken out annually either by the master or some other person belong-ing to the vessel nominated by the owner; but if the licence is to be in force for one day only the duty is £2. Any liquor can be sold for consumption on the vessel under such a licence, and tobacco also may be sold. The on railway restaurant licences is £1; upon occasional licences granted under the Revenue Acts, 1862-64, the duty on a licence for the sale of any intoxicating liquor is 10s. per day; for the sale of beer or wine only, 5s. a day. To secure such a licence it is necessary to obtain the consent of a petty sessional court, and give twenty-four hours notice to the superintendent of police of the district. The magisterial consent will specify the hours during which such licence will be in force, and these hours may not extend beyond sunrise in the morning, and 10 p.m., unless the occasion be a public dinner or ball, when the hours may be unlimited. Occasional licences are useful for cricket matches, flower shows, galas, and similar festivities.

The applicant for a licence must be a person whom the justices in their discretion deem fit and proper; and this discretion must be judicially and not capriciously exercised, nor according to mere private opinions. But no action lies against the justices for refusal. A 'minor' is apparently a 'fit and proper person.' The licence-holder need not reside on the premises, of servants, for the Finance Act, 1910, has repealed the clause in the Beerhouse who was not the real resident-holder and occupier. An extraordin-

retailer's off-licence for the sale of based upon the price which the premises would fetch if sold in the open market, and that the difficulties surrounding the ascertainment of this price have been largely created by the inflated values of tied houses for purposes of compensation, and the different methods to be applied in such cases, and the case of premises let to a person by a landlord who is not a brewer. The Finance Act, 1910, provides that the annual value shall be determined in the same manner as for inhabited house duty, which latter duty is based upon the rack-rent, if any, or if none, then upon the rent that would be paid by the hypothetical tenant. It is practically equiva-lent to the rateable value. But the Act goes on to speak of annual licence value, a value estimated by subtracting the annual value of the premises regarded as unlicensed from the value qua licensed premises. It appears that the licence-holder may choose whether he will pay duty on the 'annual value' or on the 'annual licence value.' The annual value considered as a factor in the computation of annual licence value is not arrived at in the same way as that for house duty, but is calculated on the same basis as that on which compensation under the Licensing Act, 1904, is calculated in default of agreement be-tween the parties. The mode of arriving at these compensation values is to be found exhaustively stated in the judgment of Mr. Justice Kennedy in the Ashby's Cobham Brewery Company case, decided in 1906, and the principles there enunciated are still applicable, subject to the provision in the Finance Act, 1910, by which an amount for depreciation of trade fixtures is not to be deducted from the value qua licensed premises. Where an owner not a brewer lets premises, the market value is found by capitalising the annual value based upon a true rack-rent. In the commoner class of cases, where the owner is himself the occupier (generholder need not reside on the premises, ally tied houses), and where there is, and may manage the house by means therefore, no reliable rental basis, the basis for assessment can only be the open market price; and in considerhouse Act, 1840, under which no one ing what this price will be, the fact could obtain a licence in respect of a that brewers are possible purchasers, and that they would pay according to the probable profits from liquor supholder and occupier. An extraordin-the probable profits from liquor suparily complicated mass of legislation, plied to the premises, must be taken reported cases, and memoranda of into consideration. The price is really commissioners of Inland Revenue the rent plus the profit derived from exists, relating to the method of find-the sale of liquor to the house itself; ing the annual value of licensed, and this profit is to be ascertained by premises for the purposes of assess-reference to the 'quantity and quality ment for liquor duty. Out of that of the trade previously done by the mass, one thing is clear, that the house under normal conditions, and general principle is, and can only be, apart from any considerations of a that the duty is payable on an amount 'personal or special character, such as

premises to the brewery.

A reduction in duty is allowed in the case of (a) fully licensed premises (see above) and beerhouses of an annual value exceeding £500; hotels and restaurants; (c) premises used for any purpose to which the lolding of a licence is merely ancillary, e.g. theatres, law courts, public gardens, picture galleries, and exhibi-tions; (d) refreshment rooms at a railway station. On the whole the licensing legislation of 1910 has resulted in a general decrease in the consumption of intoxicating liquors. though 1,400,000 more gallons of spirits and 1,500,000 of beer were consumed in 1911 than in 1910. But going back to 1901 the net decrease is 11 per cent, in the case of beer, and 37 per cent, in the case of

spirits.

Lichens. a very large order of lowly plants resistant to extremes of heat and cold, and probably with a wider distribution than any other form of plant life. They are common objects on walls and rocks and on trees, to which some of them frequently do much injury The nuajority, however, are not parasites, but, when present in abundance on the bark of trees, prevent it from performing its functions, and shelter numerous forms of injurious insect life. The most injurious L. known is the red rust of the tea plant (Cephaleuros myciodea). For many years L. were regarded as separate them to have a dual nature, each L. gathered materials for his being composed of a fungus and cor more single celled or thread-l

algæ. Originally, no doubt, fungus was parasitic on the all but after many struggles one w reached the state known as mutualor symbiosis, where they mutually aid one another and enjoy a more prosperous existence than they did individually. It has been observed that the algal element of some L. lives independently for a considerable time. It is during this period that parasitle L., and particularly and rute of the tea plant are cularly red rust of the tea plant, are most mischievous. Some of the commonest L. closely resemble cer-tain groups of fungi in habit and general appearance, but there is this difference between them. Fungi, as a general rule, require organic food and cannot therefore live in the absence of other forms of life. L., on the other hand, are among the first forms of life to penetrate regions | Licht which through any cause have been FELDE.

the popularity of the licence-holder, sterile. The functions of the fungal or the proximity of the licensed | half of the partnership is to propagate itself by spores and to envelop and protect the algal cells and supply them with water. These can only grow by division and in their turn manufacture the food for the whole L. by absorbing carbon-dioxide from the air, which is broken up under the influence of light into starch or Some L are of lichenin (q.v.). economic value. economic value. In the Arctic regions they frequently act as an important source of animal food and have more than once saved the lives of explorers whose provisions were exhausted. The most important of these is the Reindcer ' Moss (Cetraria rangiferina). Rocella tinctoria, which grows on rocks by the coast, is a source of litmus, while other L. yield such dyes as orchil, cudbear, and orscille. There are some 2000 British species of L. One of the most beautiful is Claydonia cornucopioides, which is common on heaths.

which is common on neather.
Lichfield, a municipal bor, and
eathedral tn. of Staffordshire, lies
in the valley of the Trent, 15 m. S.E.
of Stafford. The enthedral dates
from the 12th century, and has a
valuable library. Addison, Garrick,
and Dr. Johnson were educated at
its grammar school. Pop. (1911) 8617.
Lichtpaper, at his in Alsace Gen.

Lichtenberg, a tn. in Alsace, Germany, 14 m. N.E. of Zaberne. It contains a castle, famous in the Franco-German War.

Lichtenberg, East, a suburb of Berlin. - . ristoph

er and He ภทส์

famous-

tricity. His Gesammelle Schriften (14 vols.) appeared in 1844-53, his Briefe in 1901, and his Aphorismen in 1902. Excellent editions with Life-and Introduction were published by Grisebach in 1871, and Wilbrandtin 1893.

Lichtenburg, a tu. in the Transvaal, S. Africa, 120 m. W. of Johannesburg. Pop. 2100.

Lichtenstein, a tn. in the kingdom of Saxony, 45 m. S.E. of Leipzig; has a famous old castle. Manufs. linen and paper, and has cotton mills. Pop. 7880.

Lichterfelde, a tn. in the prov. of W. Flanders, Belgium, 12 m. S. of Bruges. It manufs, textiles, 6700.

Lichterfelde, see GROSS-LICHTER-

Licinius (Publius Flavius Galerius Valerius) (263-324), Emperor of Rome, was a Dacian peasant and received his preferment at the hands of Galerius, on whose death, in 307, he was made Augustus. L. shared his rule with Constantine, whose sister, Constantia, he married. The two emperors quarrelled and went to war; Constantine was victorious at Hadrianople and Chalcedon in 323, and caused L. to be put to death in the following year; the young Licinius, son of the emperor, was murdered about the same time.

Licking, a riv. in Kentucky, U.S.A rises in the E. of the state, flows N.W. to the Ohio, which it joins opposite Cincinnati. It is 220 m. long and navigable for 70 m.

Lick Observatory was built, at a cost of £140,000, according to the bequest of James Lick, an American millionaire. It stands on a peak of Mt. Hamilton, at an alt. of 4280 ft., 26 m. E. of San José, California, and contains the vault of its founder. The observatory now belongs to the University of California, and possesses the second most powerful refracting telescope in existence (36"). With this instrument many magnificent celestial photographs have been taken.

Lictors (Lat. ligo, to bind, probably with reference to the bound rods or fasces borne by them), civil officers amongst the ancient Romans, who were required to attend before the consuls or magistrates to clear the way. It was also their business to inflict corporal punishment and to perform executions.

Lida, a tn. in the gov. of Vilna, W. Russia, 59 m. E. of Grodno. Pop. 3000 (half Jews).
Liddell, Henry George (1811-98), famous as the collaborator, with Deep Scott of the Coast Verification Dean Scott, of the Greek Lexicon. From 1846-55 he was headmaster of Westminster School; dean of Christ Church, 1855-91; and vice-chancellor at Oxford, 1870-74. Besides the valuable Lexicon, he wrote a History

valuable Lexicon, ne wrote a misory of Rome, 1855.
Liddell, Mark Harvey (b. 1866), the editor of The Elizabethan Shakespeare, born in Pennsylvania, U.S.A. He was educated at Princeton, Oxford, and Berlin, and was professor of English at the University of Texas (1897), and professor and hend of the English school (1898-1900). In 1908 he was made professor of English in the

Licinius, Caius Licinius Calons, a which is not yet completed, he has Roman statesman, noted for his published: Chaucer's The Prologue proposal, when acting as tribune of to the Cantebury Tales; The Knights Rome, of the Licinian laws.

Tale: The Nonnes Prestes Tale, in Tale: The Nonnes Prestes Tale, in critical text, with grammatical introduction, notes, and glossary, 1901; and An Introduction to the Study of English Poetry, 1902.

Liddesdale, or Lidsdale, a romantic and beautiful border district, is the valley traversed by Liddel Water, a union of small streams which flows through Roxburghshire from the S.W. of the Cheviot Hills and joins the

Esk, 12 m. N. of Carlisle.

Liddon, Henry Parry, D.D. (1829-90), an English divine, born at N. Stoneham, Hampshire. He was ordained deacon by Bishop Wilberforce in 1852 and priest in 1853. He became vice-principal of the Theological College at Cuddesdon in 1854, which post he resigned five in 1854, which post he resigned niver years later. In 1864 L. was appointed prebendary of Salisbury Cathedral, and in 1870 he became canon-residentiary of St. Paul's Cathedral. His sermons, lectures, and writings, all of a High Church tendency, had a remarkable influence on the religious thought of the period. the time of his death he was engaged on a Life of Dr. Pusey, which was finished by other hands and published in 1893-94.

Lidford, see Lydford. Lidford Law. An old English pro-

verb ran:

' First hang and draw, Then hear the cause by Lidford law.

The term thus came into use to mean hang a man first and try him afterwards. The theory is that it arose from the very arbitrary procedure of a law court in the Devonshire town of Lidford.

Lidköping, a tn. in the län of Skaraborg, Sweden, 30 m. S.W. of Mariestadt on Lake Wener. It has trade in agricultural produce.

5500.

Lido, sandy islands in the N. of Italy, between the rivers Brenta and Piave, separate the lagoons of Venice from the Adriatic Sea. It is a popular

Venetian watering-place.

Lie, Jonas Laurits Idemil (1833-1908), a Norwegian novelist, born at Ecker, near Drammen. In 1866 he published a volume of poems, and in 1870 his first novel Den Fremsunte (Eng. trans. The Visionary, 1894), a melancholy romance, which made him famous. He spent his time therelish at the University of Texas (1891), Inim minous. He spent mis time three hard professor and head of the English is after between Italy, Germany. Paris, school (1898-1900). In 1908 he was made professor of English in the University of Louisville, a position he still holds. Besides his great Fremtiden (Eng. trans. The Barque Leville 1891). In the still holds. work, The Elizabethan Shakespeare, 'Future'), 1879; Lodsen og hans

Hustru (The Pilot and his Wife), 1874, his first really great novel; Faustina Strozzi, a verse drama, 1876; Rutland, 1881; Gaa paa, 1882; Livsslaven, 1883; Familjen paa Gilje, 1883; Malstraem, 1885; The Commodore's Daughters (Eur. trans.), 1892; Niobe, 1894; Dire Rein, 1896; Fasti Forland, 1899; The Consul, 1901, and many others. See Life by Arne Garborg, 1893.

Lie, Marcus Sophus (1842-99), a Norwegian mathematician, born at Nordfjordeif, near Bergen. He was educated at the University of Chris-tiania, where a special chair of mathematics was created for him in 1872. In 1886 he was appointed professor of geometry at Leipzig. He published: Theorie der Transformationsgruppen, 1888-93; and Vorles-ungen über Differentialgleichungen mit bekannten Infinitesimalen Trans-

formationen, 1891.
Lieben, a tn. in Bohemia, Austria, N.E. suburb of Prague. It carries on important manufs. of machinery, chemicals, cotton, and gold and silver ware. Pop. 27,034.

Liebermann, Max

(b. German painter and etche of Berlin. He was a pupil of

Liebig, Justus, Freiherr von (1803-73), a famous German chemist, born 73), a famous German enemis, born at Darmstadt. At an early age he displayed a love of natural science, and in 1819 was sent to the University of Bonn, going from thence to Erlangen, where he took his doctor's degree in 1822, publishing a paper on fulminating mercury the same year. He then went to Paris, where he made the acquaintance of where he made the acquaintance of Humboldt and Gay-Lussac. At the recommendation of the former, he was made professor of chemistry at the University of Giessen, where he attracted students from all parts of attracted students from his parts of Germany and other European countries. In 1852 he became professor of chemistry at Munich. At the outset of L.'s career, chemistry was in its infancy, but at the time of his death it had developed beyond all expectations. He established the expectations. first laboratory where students could receive thorough practical training, the well-known introduced

vegetable life, and he was the first to prove that the activity of physical and chemical forces is the same in the organised as in the mineral world. His principal work was Chemistry in its Application to Agriculture and Physiology, and he also wrote: Animal Chemistry, or Chemistry in its Application to Physiology and Pathology: Researches on the Chemistry of Food; a Dictionary of Chemistry, and Familiar Letters on Chemistry; most of which have been translated into English and French. See Hofmann, The Life-Work of Liebig in Experimental and Philosophic Chemistry, 1876.

Liebknecht, Wilhelm (1826-1900), a German social-democrat, born at Giessen. Imprisoned for his share Glessen. Imprisoned to his in the Baden revolt of 1848, escaped, going first to Switzerland then to London, where he worked for German newspapers and associated with Marx and Engels. In 1862, after the amnesty, he returned to Ger-many, but was banished from Berlin and Prussia for socialistic agitation. In 1864 he entered the N. German and in 1868 began to

ebel, the Demokratisches an attack on Bismarck

of Berlin. He was a pupil of and in 1869 studied at the Art at Weimar. His best subjects are of humble folk in the villages and fields of Holland, besides factory life in Germany. Some of his finest paintings are: 'Flax Spinners' Berlin Vorwärts, and in 1895 was impressed in National Gallery), 'The Woman with Goats,' 'An Asylum for Old Men,' 'Labourers in a Turnip Old Men,' 'Labourers in a Turnip Weissen and there is a Life in German by Eisner, 1900.

by Eisner, 1900.

nall European on the N.E. Vorarlberg, on

the S. by the Swiss canton of Grisons, and on the W. by the Rhine, which separates it from the canton of St. Gall. It covers an area of 65 sq. m., and has a very mountainous surface, the Alps here reaching an elevation of 8500 ft Vaduz is the capital, and prince

nstein, entury.

The state is included in the Austro-Hungarian customs union. 10,000.

Liège (ancient Leodium, Flemish Luik, Ger. Lüllich): 1. A prov. of E. Belgium, almost bisected by the Mouse Valley, containing offshoots of the Ardennes. Coal, iron, zinc, of the Ardennes. Coal, iron, zinc, marble, and lead abound in the S.. and phosphate of lime in the Hesbaye Steam-machinery, plateau. hardware, and fire-arms are manufactured extensively. Jewellery, fabrics, paper, and glass are also manufactured, and there are tanneries. method of organic analysis. One of paper, and glass are also manuhis favourite branches of research factured, and there are tanneries was the phenomena of animal and distilleries, and sugar-refineries. The Brussels. It contains many interest inverse orde arose. (See large of the 10th, 11th, and 12th centuries, the cathedral (formerly St. Paul's Church, rebuilt in the 13th century), town hall (11th century, last rebuilt in 1714), university (1817), and conservatoire. Two forts of its ancient fortifications remain, and it is a bishop's see. It became a Belgian possession in 1830. Pop. 174,768.

Liegnitz, a tn. of Silesia, Prussia, stands on the Katzbach, 38 nn. N.W. Lieou-Kie Of Breslau. It is an important in-

Liegnitz

stands on the Katzbach, 35 ll. A.W. of Breslau. It is an important industrial centre. Pop. 56,000.

Lien, the right to retain the goods of another pending the payment of a debt due either in respect of the goods retained, or on a general account between the parties. Ls. are either possessory, maritime, or equitable. Possessory Ls. are divided into: (a) Particular, i.e. give a right to retain the particular goods in connection with which the debt arose. Such a L. may be provided for by express agreement, or it may be implied. The law implies a L. where skill has been exercised on the goods, or the creditor has been compelled to receive them. Examples of particular Ls. are those of an innkeeper over his guests' luggage for payment of board and lodging, a shipowner over the cargo for his freight, a common carrier for goods carried, and wharfinger for goods warehoused, and the unpaid vendor's L. under the Sale of Goods Act. (b) General, i.e. give a right to retain not only for the debt arising in connection with the goods retained, but for a general balance of account. Such a L. arises either from trade custom (see Custom), or express agreement. Bankers, solicitors, dyers, factors, and stockholders have the right to exercise a general L., and recently (April 1913) Mr. Justice

carries with it no right to sen the goods retained unless such right is conferred by statute. Innkeepers and wharfingers may sell, and so may the unpaid vendor.

Maritime Ls. include those of seamen for their wages, a master for his wages, and disbursements in and about the cargo, a salvor, the owners of a ship which has been damaged in colliding with another ship by the

L., it is said to follow the thing wherever it goes. Among conflicting maritime Ls. priority is given in the inverse order to that in which they arose. (See the principle under

> Equitable L. exists independently of possession, and is in the nature of a right arising out of a trust created by agreement, express or implied. For example, the L. of a trustee on trust property for his costs and expenses, of a vendor of land for unpaid purchase money. L. may be lost

by surrender of possession. Lieou-Kieou Islands, see Loo-Choo

ISLANDS.

Lierre, a tn. of Belgium, 11 m. S.E. of Antwerp, has important manufs. of silk, cotton, lace, etc. 24,000.

Liestal, or Liesthal, a tn., cap. of Basel-land, Switzerland, 8 m. S. of Basel. It is a health resort, frequented for its medicinal springs. Pop. 5932.

Lieutenancy, Commission of, the name given to the body of commissioners who take the place of a lord-lieutenant in the City of London. They are sometimes called deputy lord-lieutenants, but this is an in-correct designation, as, although they perform the duties of a lord-lieuperform the duties of a lord-lieutenant, they are commissioners appointed annually (as a rule) by the crown; deputy lord-lieutenants, on the other hand, are appointed by the lord-lieutenant. The difference between the City of London and the rest of England is that in the former the lieutenancy is 'in commission.' It is noteworthy that under the Commonwealth the lieutenancies of all the counties were in commission as the counties were in commission, as Cromwell refused to recognise lordlieutenants and appointed commissioners in their stead.

Licutenant and Second-licutenant (Fr. licutenant, from Lat. locum lenens, holding the place of another), the officers in the British army next in rank to a captain. The former are 'subaltern-officers,' the latter 'subalterns.' The name lieutenant is given to them because they 'under-study' the troop, battery, or com-pany commander, commanding themselves, a squadron, two wagons, or a half-company. Second-lieutenants half-company. Second-licutenants were formerly called corners or ensigns, except those of fusilier regiments, who were called second-licutenants, but when an alteration was made in 1871, those appointed before default of the latter, a bottomy Aug. 26, 1871, or from the Sandhurst bondholder (see Bottomry). The 'A' list, were made lieutenants as right is exercisable over the ship and from Nov. 1, 1871, those appointed its cargo, and far from depending on lafter Aug. 26, 1871, were sub-lieutenants. tenants. The latter rank was altered in 1877 to second-lieutenant, which after being abolished from 1881 to Jan. 1887, is now in force. The duties of lieutenants and second-lieutenants are identical.

Lieutenant-Governor, see INDIA. Lieutenant in the Navy. This term

somewhat inadequately describes the position of an officer who ranks, during his early tenure of the position, with a captain in the army, and later, after eight years' service, with a major. His title, however, does not vary, and he is still simply known by the title of lieutenant. In most foreign navies this difficulty has been surmounted, but in the British navy it has not. Six years' service as a naval cadet or a midshipman are necessary before an officer becomes entitled to the rank. and then a fairly stiff examination must be passed, which includes in the subjects it embraces, navigation, pilotage, and gunnery in all its branches. During his first eight years of service he is paid at the rate of 10s. a day, whilst later he receives 12s., and after twelve years' service 14s. a day.

Lieven, Dorothea, Princess of (1784-1857), daughter of Christoph von Benkendorf, an Esthonian of middleclass, born at Riga. She received a brilliant education, and in 1800 brilliant education, Prince Christoph married Lieven. Russian ambassador to Prussia. accompanied her husband to London in 1812 on his appointment to the court of St. James, and became well known in fashionable society. Left a widow in 1837, the princess established herself in Paris, where her salon' continued to he the centre of European intrigues. She was often called the 'Egeria of Guizot,' whom she was a devoted friend.

Lievin, a tn. in the dept. of Pas--Calais, France, 14 m. S.E. of de-Calais, France, 14 m. S.E. o. Bethune. It is the centre of a mining district. Pop. 22,000. Life, and Life Assurance, see

BIOLOGY, and INSURANCE.

Lifeboats, boats specially designed for saving life in cases of ship-wreck, etc. The first insubmergible boat was built in 1785 by L. Lukin, a London coachbuilder, encouraged by the Prince of Wales, but it was not until the wreck of the Adrenture off South Shields in 1789 stirred up public feeling that any great interest was manifested in the question. A prize manifested in the question. A prize was then offered for the best L., and Henry Greathead was commissioned to build a boat embodying the best points of his own prize-winning plans, and those of William Wouldhave. The principles of a L. have altered

A quarter of a spheroid will right itself in the water, and consequently L. are in this form. The qualities which are necessary for a L. are great buoyancy allied with stability, self-righting and self-emptying powers, and facility in launching and beaching. Air-cases round the sides, and two large air-chambers, fore and aft, give the buoyancy, and a heavy iron keel gives the stability. The floor of the boat is 2 or 3 in. above the water-line. and has several large holes, at the upper end of which are valves that will let the water out, but not in. The large elevated air-chambers in the bow and stern, the ballast and the heavy keel secure the self-righting properties. The present L. of the selfrighting type has been greatly improved, and possesses in addition more stability than the old type. It was formerly considered a sufficient test if the boat would right herself in smooth water without her crew and gear; the present pattern will right herself with all her crew and gear on board, and with her anchor down. Most of the larger self-righting boats are filled with a centre-hoard and a drop keel, thus adding to their weather qualities. Only the best materials are used in the construction of a L., and each boat has to be passed as efficient by an inspector before being used. The carriage of a L. is a necessary adjunct where it is necessary to launch boats at a distance from the boat-house. Tilling's sand-plates are a great aid on soft and sandy beaches. They consist of an endless plateway or jointed wheel tyre fitted to the Steam main wheels of the carriage. L. were first tried in 1890, and have L. Were list tried in 1890, and have been successfully used where the harbour never dries out. The history of the growth of the L. service of Great Britain is briefly as follows: Before the end of 1803 Henry Greathead had built thirty-one L., eighteen for use in England, nvo in South and eight in foreign countries, but it in 1821 that the Royal for use in England, five in Scotland, Institution for the Preservation of Life from Shipwreck, now the Royal National Lifeboat Institution, was founded, by the efforts of Sir W. Hillary, Mr. T. Wilson, and Mr. G. Hibbert. The institution has always been deconder to relation was been dependent on voluntary sub-scriptions, and was reorganised in 1850, and again in 1883. At the close of 1908 the institution had 280 L.. and the total number of lives for saving which rewards had been granted was 47,983; there were only seventeen L. in the United Kingdom which did not belong to it. The principles of a L. have altered L. station costs about £1000 to but little since then, although many minor improvements have been made. The United States Life-saving Service

equipment and efficiency has reached a very high standard; it is subsidised to a great extent by Congress. The life-saving societies of both France and Germany date from 1865, and are supported by voluntary contributions.

Life Guards, the premier corps of the British army, taking precedence over all other regiments. Their duty is to attend the sovereign, as their title shows, 'life' being a corruption of the Ger. Lieb, body, the L. G. thus being the bodyguards of the king. The origin of the L. G. dates back to 1660, when they were formed as a bodyguard to Charles II., be ng principally composed of the cavaliers who followed his fortunes in exile, and retaining for many years a certain superiority of personnel. Each regiment of the L. G. carries four standards; their motto is Dieu et mon Droit. They have fought at Dettingen, Peninsular War, Water-loo, Tel-el-Kebir, and in S. Africa.

Liferent, in Scots law, a right or personal servitude analogous to the

use and enjoy ithout thereby its substance.

heritable subjects, because a L. can hardly subsist in things w

use. But there

that it may app ture or other things which wear out in process of time. A L. in a stocked farm would be construed to mean that the liferenter must leave the stock at the close of his period of enjoyment substantially of the same descriptive value and extent as at entry, and a L. of money would give the interest to the liferenter. Ls. are divided into legal and conventional. Legal Ls. comprise (a) terce (tertia) or right of a widow, or wife who has divorced her husband, to one-third of the husband's heritable subjects, and (b) courtesy or right given to the surviving husband of all his wife's heritage, provided issue of the heritage, marriage was born alive (i.e. has been heard to cry). Conventional Ls. are said to be either simple or by reserva-The former are constituted by grant by the proprietor completed by infeftment; in the latter, the pro-prietor reserves to himself a L. in the same writing by which he conveys the fee of the land to another. See Erskine's Principles of the Law of Scotland.

Life-saving Apparatus comprises rocket the apparatus. life-belts,

was introduced in 1871, and both in | Manby introduced the 'mortar' apparatus, which preceded the use of rockets. By this a line was fired over the wrecked vessel by means of a mortar; in 1814 there were fortyfive mortar stations in England, and Captain Manby was awarded a grant of £2000. John Dennet, of Newport, introduced the rocket system, and by 1853 there were 120 stations in the United Kingdom fitted with the The rocket invented by apparatus. Captain Boxer was adopted in 1855; this is a combination of two rockets in one case, so that when the first rocket has carried the line as far as possible, the second adds an impetus to it, and a greater range is There are five thereby attained. parts to the rocket apparatus, the rocket, the rocket-line, the whip, the hawser, and the sling life-buoy. The rocket, to which the rocket-line is attached, is fired over the wreck. The crew of the latter haul in the whip, which is an endless line rove through a block with a tail attached to it; the latter is detached and fastened to some portion of the ship high above the water, such as a mast. The hawser, to which is hung the travelling life-buoy, is then houled off to the wreck by the rescue party. The persons on the wreck then travel one me to shore in the life-buoy. apparatus of ocket is the exclusive property of the Board of Trade, and is managed by the coast-guard service. Next in importance comes the life-belt. Every man engaged in lifeboat work must wear a life-belt, and considerable improvements have been made in

the pattern used since 1898, principally by a reduction in the length of the corks under the arms and rounding off the upper portion so as to give the arms of the wearer more The maximum buoyancy has been reduced from 25 to 22 lbs., but the life-belts used in lifeboat work will support a man fully clothed, and a second person. Patents have been taken out for numerous life-belts of very varied description and material, but for general purposes a cork life-belt as above described is the best. The Ryder hammock, a mattress made of cork, is serviceable and will support three men in the water. It was hoped that the Paris Exhibition of 1900 would produce some noteworthy invention, but although many novelties were exhibited, nothing indispensable to life-saving work was evolved. The Andrew Pollok prize of £4000 for the rafts, dresses, buoys, bells, etc. The best method or device for saving life principal means of saving life near from shipwreck, etc., was not the coasts of Great Britain is the first awarded to any of the 435 comnamed. In 1807 Captain G. W. petitors. Liffey, a riv. of Leinster, Ireland, rises in the Wicklow Mts., and flows into Dublin Bay at Dublin, after a

course of 50 m. Lifts, contrivances for raising and lowering weights from one level in a building to another. They are used for goods of all kinds and for passengers, and are actuated by hand, steam, hydraulic power, electricity. The generic term 'lifts' includes all L., elevators, and hoists, includes all L., elevators, and hoists, for passengers, wagons, coal-tubs, etc.; the motive power now most generally used in tube L., etc., is electricity, steam being used in coal and other mines where the shaft is very deep. Hand-power L. are raised and lowered by means of an end-less rone running in pulleys with less rope running in pulleys with V-grooves, and actuating spur gears. They are fitted with a hand brake, and their carrying capacity varies from 2 to 10 cwt. Belt-driven L., actuated from a steam or gas-engine, are now only used where electricity or water power is not available, but were formerly much used. The cage, which is suspended, is counterbalanced by a cast iron weight, and runs between guides of hardwood or iron. The drive is by a fast pulley with loose pulley adjacent, connection being made by a worm and worm wheel; the rope is coiled round a drum. Electric L. in one system are driven and reversed directly by a reversing motor, which with each journey of the cage is started, stopped, and then reversed; no current is thus consumed when the cage is not working, but the original cost of the system is more than with constantly-running motor. another system the motor, which is continuously running, is belted to a countershaft, whence other belts drive the L.; when the L. are idle current is wasted, and the noise of the countershaft would in some cases be objectionable. In high speed electric L. provision has to be made in the design of the controller and the winding of the motor for rapid acceleration of speed and a large range of speeds without any shock. A compact and widely-used design of electric L. drive is that in which the motor drives a worm directly, and a worm wheel to a rope drum or sheave. In the Central London Railway L., two worms, one right and one left handed, are fixed on each spindle; these gear with two worm rebounding from the chamber. spindle; these gear with two worm rebounding from the chamber. An wheels, the result being that there is air-cushion should extend for one-no lateral thrust on the bearings. In tenth of the depth of the shaft; in many L. systems only the authorised the Empire Building in New York attendant is able to control the open-the shaft is 287 ft. deep and the airing and closing of the L. gates; on cushion 50 ft., extending from the theopening of the door the apparatus bottom of the shaft to the third is locked, so that the L. cannot be storey. Though the air-cushion is

moved till the door is closed. The Easton Lift Company add a safety The gate lock to some of their L. systems, which renders it impossible for the L. to be started until the gates are closed and locked. In order to prevent a jerk in starting the L., when the full electromotive current is available, resistance is usually inserted in the motor circuit; an automatic switch reduces the resistance as the supply of current decreases. In the drum drive there are separate sets of ropes for the suspension of the cage and the balance weights; each set is anchored to the drum, and whilst one set of ropes is being unwound the other is being wound. A sheave drive having V-grooves is sometimes used instead of a drum drive; the ropes are not attached as to the drum, but the L. is attached to one end of the ropes and the balance weight to the other, and the ropes are driven by the friction of the V-grooves. This system avoids the lateral transverse of ropes on a drum, and the necessity of a slack cable in a drum drive. In the Easton cross-over drive four suspending ropes are used on an eightgrooved sheave, the grooves of which are turned to the radius of the ropes, so avoiding the friction of V-grooves. The ropes are smaller in diameter than when two are used, and the wear is nearly the same as that of ropes on drums. The electric L. of the Central London Railway are guaranteed to raise 17,000 lbs. 65 ft. in 30 sees. from start to stop. In twenty-four shafts 100,000 ft. of 7 in., and 17,000 ft. of 7 in. steel rope are used. The steel used in the cables, of which there are four or six to each car and counterweight, has a tenacity of over 85 tons per sq. in. section. (For details as to hydraulic L., see under Hydraulic Machinery.)

Safety in the event of the ropes breaking is of the utmost importance in all passenger L., and many patents in an passenger L., and many patents have been taken out for devices to secure this. The best method is an air-cushion, a chamber into which the cage drops if the rope breaks, or unwinds too rapidly, and in which the compression of the air brings the L. to rest without any shock. chamber must be perfectly air-tight,

excellent as a last resource, some draulic L. are usually of the susdevice to stop the L. as soon as a pended type, however, in which the rope breaks is usually fitted. Safety-four ropes holding the cage are win up by a short ram. These L. be worked at a high speed and the stopped the

tension of the is fitted; this carries no weight until all the others have failed, when the strain on it causes a pull on the cams, to one of which it is attached. L. are in some cases replaced by or moving stairways, or escalators, which travel upwards at the same time as the person walks up them. so that the speed of the latter is equal to the sum of the speeds. They are composed of an endless belt driven by electricity. In the case of L, for coal mines, the motive power is anways steam; the rope passes over the headgear on to a drum, and as a rule as the cage on one side is let down that on the other is drawn up. A balance rope which passes round a pulley at the bottom of the shaft and is connected to the cage is usually to counterbalance employed varying weight of the winding rope as

Hydraulic L. may be direct acting, in which case the cage rests on a ram which works in a hydraulic cylinder sunk as a well down beneath the building. This is costly, however, to fit up and uneconomical in working, although it is a very safe arrangement since the cage cannot fall, and

it is drawn up.

They are not need a deep well. tension of the scription of Waygood's safety-gear scription of Waygood's safety-gear twill give an idea of the principles of such devices. In this the pressure is applied by cams, which act on the twood runners guiding the L. The ropes are led down from the top this connection, too, canal L might corners of the framing to the bottom of the cage, and attached to a sliding plate, which the weight of the cage and the tension of the ropes maintain sist of two tanks, one of which is in position. Four cams are attached up when the other is down. A boat is to this plate, two at each end, confloated into each tank from the two nected by shafts passing beneath the levels, the gates closed, and one cage. Should a rope break the cams tank lifted while the other is lowered are simultaneously drawn inwards to by rams working in vertical hydraulic grip the wood runners. In case all cylinders. It is evident, since the four ropes should break, a fifth rope two tanks with their boats are almost equally balanced, that the expenditure of power is not great. By keeping the level of water in the ascending tank lower than that in the descending one, it is obvious that even this expenditure is very much lessened.

Ligament, a band of flexible connective tissue connecting the ends of bones and sometimes enveloping the joints. Most Ls. are composed of white fibrous tissues, which is made up of fibres running parallel to each other so as to form a compact strucalways steam; the rope passes over ture. Such are the Ls. around the Other Ls. are composed of joints. yellow clastic tissue which is specially adapted to support a continuous but varying stress, as in the Ls. connecting the various cartilages of the larynx. Ls. are also classified as funicular, or cylindrical cords: fasicular, or flattened bands; and cap-

cular, or natened bands; and cup-sular, or enveloping Ls. completely investing a joint. Ligan, or Lagan, see Flotsam. Ligao, a pueblo of the Philippine Is., lies in Albay province, Luzon, on the Quinali R. Pop. 18,000.

Ligature (ligatura, a band), a cord, band, or thread used for tying about ment since the cage cannot fall, and even should a leak occur in the them temporarily or permanently. A cylinder then the cage would only L may be provisional, if it is applied fall very slowly. To minimise the during an operation with the intended his lowever, some method of the during an operation with the intended his lowever, some method of the control of the arteries or other vessels to occlude from the L. cylinder passes into the tion. For temporarily arresting the weighted cylinder. So energy is circulation of a limb, as when an stored up, and is utilised in the artery is severed, a tourniquet, which return upward-loaded journey. Hy can be tightened by turning a stick

tightly that the tissues are destroyed: fistula and other growths are removed by this means.

Ligature, in music, a slur, or tie, indicating that a group of notes is to be played coherently, or, in vocal music, sung in one breath. In instru-

phrasing.

Light, that which causes the sensation characteristic of the normal working of the eye. It is impossible to frame a definition of what L. is, as the nature of L. is still the subject of

f which tory exena conheory of concep-

material particles propelled from the source in straight lines. The substance thus propelled was conceived to be imponderable, and its powers of penetration varied according to the nature of the substance in its path. That is, some substances were known to be transparent, others translucent, and others opaque. On striking a surface, certain of the propelled particles were repelled or reflected at the same angle with the normal to the surface as that at which they met the surface. Again, on penetrating transparent substances a certain amount of deviation was caused if the particles struck obliquely. If the par-

of nature or momentum amongst the particles composing white L. The emission or corpuscular theory thus light, and

Newton it survived the attacks made upon if until the beginning of the 19th century. Long before the emission theory was abandoned by physicists generally, many thinkers had conceived of the idea of L. being constituted by the propagation of waves in an elastic medium, in much the same manner as sound waves are propagated in air by the vibration of some body or other. The great objection to the undulatory theory was the generally admitted principle that L. travels in straight lines in a homogeneous medium, while sound waves were known to travel around obstacles and through apertures; that is to say, the existence of sharply-defined shadows was held to demonstrate a funda-

thrust between the band and the mental difference in the modes of limb, is employed. Other Ls. of propagation of L. and sound. The disrubber are used to compress a part so covery of the phenomenon of diffrac tion caused a general change opinion. This phenomenon involves an amount of deviation from the straight line when L. passes the edge of an opaque body or through a small aperture, and demonstrates shadows are after all not sharply out. mental music the term marks the The difference in behaviour of sound and L. in this respect was now seen to be due to a difference in wave length: that in general sound waves were long in comparison with the obstacles round which they flowed, while L. waves were much shorter. The undulatory theory explained lightphenomena much more satisfactorily for the time being, the only difficulty being the assumption of a lumini-ferous æther which permeated all tion that L. was a succession of things and was perfectly elastic. The various phenomena, etc., are discussed under the headings Aberra-TION, ÆTHER, ABSORPTION, DIFFRAC-TION, DISPERSION, FLUORESCENCE, INTERFERENCE, POLARISATION, RE-FLECTION, REFRACTION, SPECTRUM. etc.

Light Balls were used in time of war to obtain information as to the enemy's position and occupation. They were of various kinds; thus, one L. B. consisted of a canvas sack filled with an illuminating material and thrown among the enemy's working parties at night, or into their intrenchments, etc. L. B. containing illuminants were also fired from mortars, as were parachute L. B. These contained a lightly folded parachute, to which was attached a cup filled with some illuminating composition. On the bursting of the fuze

Light Cure, see FINSEN, N. R.
Lighter and Lightermen. Lighters
are strong, heavy, flat-bottomed
boats for transporting cargo to and
from ships or docks. They are usually open, but some have a deck and large covered hatches. They are either furnished with mast and sail, or else oars or sweeps are used. Lightermen are those employed in or about lighters. Thames lightermen are licensed by the Watermen and Lightermen Com-

pany, incorporated in 1827.
Lightfoot, Hannah (fl. 1768), a
Quaker girl of humble family, who. it has been asserted by some, was the mistress of George III. when Prince of Wales. Others go so far us to state that the prince married her. There is

no direct evidence of either assumption, and the probability is, that the rumours were without foundation. The question is closely argued, from opposite standpoints, by Lewis Melville in Farmer George and by M. L.

Penderel in The Fair Quaker.
Lightfoot, John (1602-75), an English divine and rabbinical scholar, born at Stoke-on-Trent. He took orders and became chaplain to Sir R. Cotton in London, who, in 1630, presented to him the rectory of Ashley in Staffs. His first published work, Erubhim, or daical per hours, ap. His next publication was A Few and New Observations upon the Book of Genesis (1642). In 1643 he left Ashley for London, and was made rector of St.

Bartholomew's Church, near the Exchange. In the same year he sat in the Westminster Assembly. In 1650 he was appointed master of St. Catherine Hall, Cambridge, and four years later vice-chancellor of the university. The best edition of his works is by J. R. Pitman. See Life by D. M.

Welton.

Lightfoot, Joseph Barber (1828-89), an English prelate and theologian, born in Liverpool. From 1854-59 he edited the Journal of Classical he edited the Journal of Classical and Sacred Philology, and in 1858 took holy orders. For many years he took a prominent place in all educational matters at Cambridge. In 1861 he was made Hulsean professor, and shortly afterwards he became chaplain to the Prince Consort. In 1871 he was made a canon of St. Paul's Cathedral, and in 1879 recented the histopric of Durham accepted the bishopric of Durham. left a number of important He theological works, the chief of which was his Apostolic Fathers (2nd ed.), He also wrote Ignatius and 1890. Polycarp, and commentaries on the Epistles. See Westcott's Bishon Light foot.

Lighthouse, a building erected to carry a light for the purpose of warning and guiding mariners as to their position and course. From very ancient times towers were erected with beacon fires, those built by the Libyans and Cushites in Lower Egypt being perhaps the earliest. The first beacon which was regularly maintained for the benefit of mariners was probably that referred to by the Greek poet Lesches at Sigeum in the Troad (now Cape Inchisari). The Pharos of Alexandria, built in the reign of Ptolemy II. (283-247 B.C.) by Sostratus of Cnidus, was one of the seven wonders of the world, and 'pharos' was for long used as a generic term for a L. The Emperor Claudian built a tower at Etia in

50 A.D., and other noted Ls. of the Romans were those at Pozzuoli, and Messina. T Ravenna. The earliest Ls. in Western Europe were those at Boulogne (La Tour d'Ordre) and at Dover (the Pharos), built by the Romans, who are also presumed to have erected Ls. at Holywell, Flam-borough Head, and Boulogne. The earliest example of a tower exposed on all sides to the onslaught of the waves is the L. of Cordonan, built on a rock in the sea at the mouth of the Gironde; the first L. at this point (805) is attributed to the conditional of the conditio point (805) is attributed to Louis le Debonnaire. Many towers with braziers were built at various posi-tions on the coasts of Europe during the 17th and 18th centuries, such as those at Tynemouth (c. 1608) St. Bees (1718), and the Lizard (1751) in the United Kingdom. The Boston Light on Little Brewster Island, Massachusetts, is the oldest in the U.S.A., dating from 1716, and the present structure from 1859; other early Ls. were erected at Beaver Tail, near Newport (1740), and at Brant in Nantucket Harbour (1754). Ls. may be divided into two classes, according to whether they are built on rocks. etc., exposed to the sea, or on the shore; the latter class are naturally The former class more numerous. vary in structure and design according to the special considerations of locality, foundations, etc.; they may be divided into four classes, those built of masonry or concrete, those built of openwork steel or iron on pile foundations, cast-iron plated towers, and structures on cylinder foundations. Masonry towers are built when the foundation is good; the chief points to be observed are as follow: the centre of gravity should be as low and the foundations as deep as possible, and the structure should be of a circular plan. The lower portion should present a vertical face to the waves, and the upper portion should be either straight with a uniform batter, or continually curved in the vertical plane. There should be no projections save a gallery under the lantern, and the height should be sufficient to prevent the spray reaching the latter. The stones, especially those on the outer face, should be dovetailed or joggled; recently con-crete and reinforced concrete has been. econd class coral reefs. is insecure or sandy, as iron or steel piles can be driven in and the structure built thereon. The third class is erected in situations where the cost of stone or the scarcity of labour renders masonry expensive. Cylinder or caisson foundations are used where it. third face. The catoptric system ture on sand-banks, shoals, etc., as in dates from about 1763, the dioptric the case of the Rothersand Tower from about 1786, and the catadlop-(see below). Some of the more important of exposed Ls. are as follow: tric from 1823; the two latter were invented by M. Fresnel, whose calculations are still used as a basis on the built by Sir J. N. Douglass, dates from subject. When the rays from the 1882; previous Ls. were built by Wingtonley (1608-1702) Pudgond Winstanley (1698-1703), Rudyord (1709-55), and Smeaton (1759-1877). Bell Rock L. (1811), off Forfarshire, has a focal plane 93 ft. above high Rudverd water. Skerryvore L. (1844), off the of 138 ft., a

if 42 ft., and at éaux de Brehat de Ré, has a

Rock L. (1858, destroyed during building in 1850) in the Scilly Isles was strengthened in 1874 and again between 1881-87. Minot's Ledge L. (1860) in Boston Harbour, Massachusetts, U.S.A., has a height of 89 ft. Beachy Head L. (1902) has a height of 103 ft.; the old structure on the cliff had a height of 284 ft. Rothersand L. was commenced in May 1881, but was destroyed in Oct. of the same year. The present structure, which was completed in 1885, has a height of 78 ft. above high water, or from the foundation caisson to the top vane, a height of 185 ft. Other noteworthy Ls. are the Horsburgh, Singaworthy Ls. are the Horsburgh, Singapore (1851); Smalls L. (present structure 1861); Dædalus Reef in the Red Sea (1863); the Wolf Rock L. (1869); Dhu Heartach (1872); Great Basses, Ceylon (1873); Prongs, Bombay (1874); Spectacle Reef, Lake Huron (1874); Chicken Rock, off the Calf of Man (1874); Armen, near the He de Sein, Finistère (1881); Rattray Head (1895); Fastact (1904); and Jumant d'Ouessant, France (1907) I.s. bnilt on land do net (1904); and Jumant d'Ouessant, fixed and group flashing, and group france (1907). Ls. built on land do occulting, according to the duration not present as

An 'alternating' light is one in

source of light are distributed evenly into a belt of light around the horizon. being condensed only in the vertical plane, the light is a 'fixed' light. When the rays are concentrated into a pencil or cone of light directed towards the horizon and caused to revolve round the source of light, the light is a 'flashing light.' For sector lights and those throwing a beam over a wider azimuth than the flashing lights, the rays are condensed, both in the vertical and horizontal plane, in such a manner as to concentrate the light over an azimuth of the required magnitude. Fixed lights are now very little used, being converted into occulting lights in many cases by the use of apparatus which enables the light to be cut off when required.

uncoloured glass, and that of green only 25 per cent., and a system of reinforcement has to be adopted to make the lights equal in intensity when two colours are used. Lights are divided by the Admiralty into culting. : two latter is

All lights in which the period of darkness exceeds that of light are termed flashing, whilst all in which the light period is longer than the dark are termed oc-culting. These are further divided into group flashing, fixed and flashing,

an interval: the

still retained in the hone for a both which gradudecreases from th really coming

> -As late as the duced candles. wicks were introduced about 1763, and the invention (c. 1780) of the Argand burner caused a great improvement. Sperm oil was used at first, and later colza oil. In 1868 a hurner was invented which would

drocarbon oils (petroleum use of coal gas dates from indescent burners to take is also used, although

to focal plane, whilst d'Eckmuhl (Penmarch 207 ft., built in 1897, most magnificent of sucl Optical apparatus of There are three differences and the dioptric, 19th century wood or coal was used light he first the to give light in Ls.; Smeaton introduced candles. Oil lamps with flat only from the faces of incidence, such as silvered mirrors of plane, spherical para-

whilst

trom

bolic or other profile. In the second the rays pass through optical glass and are refracted at the incident and Chumana w

tr

internally at the second face, and are | coal and mineral oil gas are used. again refracted on emergence at the Acetylene

attended lights. The first installation of electric light for L. purposes was

in 1858

Lightships, buoys, etc .- The use of vessels in places where Ls. cannot be erected dates from 1732. The lamps are annular in form and fit round the masts. The use of unattended lights is comparatively recent, dating from Now electric, oil, and gas beacons, fitted with automatic apparatus for lighting, flashing, etc., have been placed at various points, and permanent wick lights, in which the carbonised tar is formed on its upper | discharge. surface, are also used. Similar apparatus is also fitted to buoys. Bells and sirens are also employed as warning agents in times of fog. In 1910 the total number of Ls. in the United Kingdom was 1217; of light-vessels, 87; fog signals, 289; and submarine bells, 19.

See Allard, Mémoire sur l'Intensité See Allard, Mémoire sur l'Intensité la Portée des Phares, 1876; T. Stevenson, Lighthouse Construction and Illumination, 1881; Royal Commission on Lighthouse Administration, 1908; and articles by Chance, Douglass, Hopkinson, Brebner, and others in Proc. Inst. Civil Engineers (vols. XXVI., XXX., XXXVIII., IVII., IXXV., IXXXVIII., cviii., cxlix., ctc.). See the articles on the most important Ls. (Eddystone, etc.); LIGHT, ENGINEERING, etc.

NEERING, etc. Lightning, a discharge of electricity between two clouds or between a cloud and the earth, the discharge being accompanied by a visible flash. The cause of the discharge is a difference in potential between cloud and cloud or between a cloud and the earth. In dry weather the electrical potential at the surface is positive from without inwards; that is, the atmosphere has a potential positive with respect to the earth, and the difference of potential increases with the distance from the surface. Under circumstances which have not yet been fully investigated, the normal exchange of electricity is not suffi-cient to maintain the usual balance; particles of water charged with electricity coalesce to form drops, so that the charge is spread over a smaller surface, producing in the aggregate a condition of stress which is eventually determined by a lightning flash. L. is generally recognised as being of two kinds, forked and sheet L. forked variety gets in them of the natural function is re-established. produced, but careful observation Buildings are protected to some and photographic evidence show that extent from damage by L. by the the course is usually sinuous, with attachment of a L. conductor. This occasional branching. The thunder is consists of a metal rod or wire extend-

various precautions are necessary, the noise accompanying the discharge, and it is especially suitable for un-augmented and prolonged by repeated echoings between cloud and earth. Sheet L. is probably the impression of a flash so far away that the sound waves do not reach the observer; it usually consists of an indefinite illumination towards the horizon. A third variety of L. is sometimes spoken of as ball L. No explanation of such a happening has been supplied, unless it be that the appearance of a ball is due to the L. being seen 'end on,' so that it remains visible for a longer time. The so-called thunder-bolts are usually masses of metal or of earth wick is treated so that a deposit of that have been fused by the electric carbonised tar is formed on its upper discharge. Thunder travels at the rate of 1100 ft. per second, so that an approximate estimate of the distance between the observer and the seat of discharge can be made. Thus if there are five seconds' interval between flash and thunder, the storm may be said to be a mile off. By counting the intervals between the L. and thunder of successive flashes, it can be deterof successive hasnes, it can be determined whether a storm is approaching or receding. Thunderstorms are common in hot summer weather. When the L. has commenced, there is considerable disturbance in the atmosphere. Violent guts may be experienced if the storm is low, or the cavial disturbance may be got the aerial disturbances may be confined to the upper atmosphere. The storm may travel across country at about twenty miles per hour if the previous conditions have been quiet, but the rate may be as much as 50 m. per hour if squally conditions exist.

Effects of lightning.—When a discharge takes place, it is most likely

to take place through isolated buildings and trees, or those which project above others. If the material is not a good conductor of electricity, injury is likely to be caused by the passage of the electricity. Of all trees, the poplar, oak, ash, and elm appear most liable to be struck, and persons or animals sheltering under them are likely to share in the injury. When a tree is struck by L. the trunk may be shattered, the bark stripped off, or a charred path may be seen from top to bottom. Persons killed by L. die instantaneously. If the shock be not immediately fatal, burns, wounds, and loss of special senses ordinarily occur. As the danger to life is usually from shock, the patient should be kept warm and stimulants ad-ministered. If respiratory action is impaired, artificial respiration should forked variety gets its name from the be resorted to and persisted in until

ing from top to bottom of the building. The top should project at least six feet above the highest part of the building, and the conductor should be absolutely continuous throughout its length. It is usual to bury the of incandescence. In most methods better ment in a bad of deprecial and a striking library this will be the striking of the striking and the striking of the striking and the striking and the striking of the striking and the striki

Light Railways, see RAILWAYS,

LIGHT.

Lights, in public worship, were used ceremonially by Christians ing at least the first two centuris our era. This is certain from the guage with reference to them used by such carly writers as Tertullian, Lactantius, and St. Gregory of Nazianzus. It is equally certain, however, that the exigencies of Christian worship during the days of persecu-tion must have necessitated the use of L. for utilitarian purposes, and the L. thus introduced were later retained for the value of the symbolism which had become attached to them. During the middle ages the ceremonial connected with them became very elaborate, and their presence became associated with the Blessed Sacrament. This is especially seen in the modern Roman Catholic Church. L. are used at the Holy Communion

both in East and West.

Lights, Ancient, the popular name for the easement (q.v.) of right to light. The right to have free access of the sun's light to one's windows with-out obstruction by others originates either in a grant (q.v.) or by prescriptive title of twenty years. The presumption in favour of the right after twenty years uninterrupted enjoy-ment is that it has always existed. If, therefore, the person resisting the right proves that forty (say) years ago the access was blocked against the claimant or his predecessor in title. the inchoate right is defeated; and the same result follows if he can show that the claimant's enjoyment of light given by him (the person resisting), or his predecessor for a limited and for himself and his successors an absolute title to A. L. as against both ing high B and C and their successors in title. The owner of A. L. is entitled not heating only to sufficient light for the purpose of his then business, but to all the light which he has enjoyed prior to the interruption he seeks to restrain.

its length. It is usual to bury the of incandescence. In most methods bottom part in a bed of damp soil, or of artificial illumination, this subto connect it with a water-main, if stance is some form of carbon. When such be available. particles of carbon are produced by the decomposition of the organic

erial, and icated to cause the

of vegetable and animal origin have been used in lamps from time immemorial but the introduction of mineral oil in 1853 brought about a greater efficiency, and the fall in price consequent upon the discovery of vast natural stores of petroleum brought that illuminant America within the reach of all. The efficiency of oil lamps owes a great deal to the burner introduced in 1784 by Argand, and the modifications and improvements which have been made since then. The essential feature of the burner is that the wick takes the form of a hollow cylinder, so that a current of air passes upwards and feeds the inner surface of the flame with oxygen. The introduction of a chimney enclosing the flame brought about a higher degree of steadiness and tended to increase the supply of air. Coal gas was first used as an illuminant by William Murdoch of Redruth in 1779. The early burners were of the 'batswing' type, in which a flattened flame was produced by a slit in the end of the burner. Later, the 'fishtail' flame was produced by causing two jets of gas from two small holes in the burner to impinge upon one another, with the result that a flattening of the flame was produced. Incandescent burners had been tried as early as 1826, but it was not until after Bunsen had introduced his depended on a written leave or licence, heating burner that they became given by him (the person resisting), successful. The Bunsen flame is nonluminous in itself, because the intronow expired period. If A and B are duction of a certain amount of air neighbouring tenants of C, A acquires into the gas current causes complete oxidation of the carbon with a resulting high temperature. Attempts were made to

to inc.: We share a cutton of produced. In A right to A. L. cannot be acquired in cerium in the proportion of 99 to 1. favour of open ground, but only in favour of buildings. If a person enlarges old windows, these enlargements can be obstructed with impunity, though the A. L. are still entitled to protection. The right to the organic matter. In order to cotton in alcohol and ether. This leaves a film of gun-cotton upon the mantle, which is thus rendered fairly secure until the film is burnt off by the consumer. Other improvements in coal-gas illumination were provided by the introduction of the inverted burner and of the high-pressure system, by which a small motor is used to increase the pressure above that of the gas in the mains. Electric lighting may be divided into arc systems and incandescent systems. In the former, two carbon rods are placed in contact end to end to enable an electric current to be passed, and are then drawn apart so that a discharge takes place across the gap, which is therefore bridged by a curved stream of vapour at a high temperature. Arc lamps are of many different types, and numerous mechanisms have been invented to maintain the necessary distance between the carbons, which are burnt away at a rate which varies with the current and the type of lamp. The first commercially successful incandescent lamp was that intro-duced by J. W. Swan and T. A. Edison. It consists of a filament of carbon enclosed in a small glass globe from which the air has been exhausted. In 1897, H. W. Nernst patented a lamp in which the incandescent substance was magnesia or a mixture of rare earths. The use of an exhausted glass vessel is rendered unnecessary, but the incandescent body requires to be heated by a small coil of platinum before its conductivity is sufficient to take the current. The lamp does not, therefore, become illumined as soon as the switch is operated, and is therefore less suitable for domestic purposes than for street lighting. In 1904 the tantalum lamp was introduced. The incandescent body is a zig-zag wire made of tantalum, a metal melting at about 2000° C. A still higher about 2000° C. A still higher efficiency has been afforded by the use of drawn tungsten wire. Attempts have been made to utilise vapour lamps, particularly that in which a current travels through mercury vapour, but the colour of the light has so far prevented anything like a general use. See ACETYLENE

Lights, Northern (Aurora Borealis, Australis, Polar Light), a natural phenomenon which occurs in many colour, hence 'brown coal.' It occurs forms, often of great beauty. The in beds like true coal, but is of much principal types are arcs, bands, rays, later geological age. Deposits of L.

enable the mantle to be handled flaming red. The aurora usually without breakage, it is dipped in begins with an arch, its apex to the collodion formed by dissolving gunderic meridian. It is often better cotton in alcohol and ether. This neath the sky seems darker than the rest of the heavens. Stars are visible through this 'dark segment' as well as through 'the aurora' itself. The bright streamers of light which often extend 20 or 30 degrees unwards are known to the Shetlanders as the 'merry dancers.' Auroral displays are most frequent and most brilliant in higher latitudes. They are supposed to be due to some form of electrical discharge.

Lightship, a strongly-built wooden vessel, fitted out with lights, moored at sea near reefs, or where it is not feasible to erect a lighthouse. Before 1807 a lantern was hung at the yardarm; Robert Stevenson then introduced a lantern which surrounded the mast, and this plan has since been adopted everywhere. In 1864 Messrs. Stevenson used dioptric instead of catoptric apparatus in ing the Hugli Ls., and Sir designing the Hugli Ls., and Sir James N. Douglass improved the lan-

terns, using two-wick lamps.

terns, using two-wick lamps.
Ligne, Charles Joseph, Prince de (1735-1814), an Austrian soldier and writer, born at Brussels, descended from a princely family of Hainault. He distinguished himself in the Seven Years' War, afterwards rising rapidly to the rank of lieutenant field-marshal. He held high military and diplomatic positions during the reign of Joseph II., and lived in great splendour and luxury. In the War of the Bavarian Succession he again saw active service, and commanded the Austrian artillery commanded the Austrian artillery at the siege of Belgrade in 1789. At the conquest of Belgium by the French he lost all his estates, but was given the rank of field-marshal and an honorary command at court. From this time onwards till his death he devoted himself to literary work. His collected works appeared in thirty-four volumes at Vienna during the last years of his life, selections being published in French by Mmc. de Staël. See Lives by Thürheim and Du Bled.

Lignite (Lat. lignum, mineral substance of wood), vegetable origin like coal, but often showing a

y parts of the world.

i, also in the manuf. Jet is a variety of L.

brilliant yellow, green, violet, or coloured, cross-grained heartwood of

a small W. Indi officinale) which, the tree, becomes therefore of great value for making! wooden rollers, rulers, pestles, pulley blocks, etc. The bark has medicinal

properties. See GUAIACUM.

Ligny, a vil. in the prov. of Namur, Belgium, 13 m. N.E. of Charleroi. It was the scene of the victory of Napoleon over Blucher, June 16, 1815, two days before the battle of L. has an important ex-Waterloo. port trade in granite and marble.

Pop. 2000.

Pop. 2000.
Ligonyi, see Elgon, Mr.
Ligor (Stamese Sakor), the chief
prov. and tn. of Lower Stam in the
N.E. of the isthmus of Kra, Malay
Parisonla. The town is on the N. of is mined.

>), a cele-iter, born of Paolo

Veronese, He where he was Grand Duke his masterpi

Crowned Saints,' and the 'Martyrdom of Saint Dorothea.' Several of his oil paintings are in the churches of

Florence.

Ligulate, strap-shaped, a botanical term used of the strap-shaped or long, narrow ray and disc florets of the sub-order of composites, Ligulithe sub-order of composites, ligan-flore, of which the dandelion is typical; Tubuliflore, the other sub-order, may have lightlate ray florets. Liguori, Alfonso Maria di, Saint (1695-1787), a Roman Catholic theo-

logian, founder of the Redemptorist order, born at Marianella, near Naples. In 1726 he became a priest, and in 1732 organised the 'Congregation of the Most Holy Redeemer, being appointed by Pope Benedict XIV. founder-general for life. He was canonised in 1839, and declared doctor of the Church in 1871. Moral theology was the most important department of his teaching. Mis chief work is his Theologia Moralis. See Lives by Capecelatro and Rispoli, and A. M. Tannoja, and

and Ruspon, 1981.

1798-1802.

Liguria, in ancient Italy, a dist.

between the Ligurian Sea (Gulf of Genoa) and R. Po, bounded W. and
E. by R. Varus and R. Macra. In

by R. Varus and R. Macra. In E. by R. Varus and R. Macra. In early times the territory extended into Gaul. The Ligures were con-quered by the Romans in the 2nd century n.c. In modern times it is a N.W. Italy, Italy,

to Maurizio is good; oranges and wine are

the republic of Genea during its years (1797-1805), when it was ganised by Bonaparte and made to substitute a democratic for an aristocratic constitution. Till 1802 it was ruled by the Directory, then a Doge became the chief executive. Finally it was annexed to France (1805). See Camb. Mod. Hist.ix., 1907.

Ligurite, a crystalline mineral, an apple-green variety of titanite, found in a talcose rock in the Apennines. In its primary form it is an oblique

The brimary form to is an originary frombic prism.

Li-hsi, King of Korea, came to the throne in 1864. Previous to the war of 1894-95 he had resisted the encroachment of China, but he was of a somewhat weak and vacillating character, and was largely influenced by the Russian agent residing at Seoul. In 1897 he was proclaimed Emperor of Korea, but in 1910 the country was formally annexed to

Japan.

Li Hung Chang (1823-1901), a Chinese statesman, born at Hofei in Ngan-hui. In 1864 he became governor of the Kiang provinces, and on the outbreak of the Taiping rebellion in 1866, again took the field, and ultimately succeeded in suppressing the movement. He subsequently became the vicerov of Tien-tsin. which position he held till his death. At the time of the war with Japan, Li was in a position of great responsibility. He recognised the necessity of

encroachments of Japan, and

under his supervision, both army and navy were greatly strengthened. Notwithstanding, the Chinese forces were routed, and in 1895 the emperor sued for peace, Li being sent to negotiate. In 1896 he represented the emperor at the coronation of the czar. He died shortly after the conclusion of the Boxer movement, the peace being mainly brought about through his exertions.

Likin, or Lekin, a Chinese provincial duty, originally a war-tax transit d

ne, as goods at tolls and

may com-

mute these dues by paying 21 per cent. import duty. The tax yields about £1,950,000.

Lilac, a name for various species of Syringa (order Oleacem). They are very hardy, deciduous shrubs, bearing large terminal panicles of flowers, which vary in colour from white to blue, violet, and purple, and are in most cases delightfully fragrant. S. vulgaris, a native of Persia, with its many modern varieties, is one Area 2037 sq. m. Pop. 1,211,000. its many modern varieties, is one Ligurian Republic, the name given, of the commonest shrubs, and grows ditions, but is more floriferous when regularly pruned and its faded flower heads and also its suckers removed. It is easily forced to produce blooms in mid-winter, S. persica is a dwarf L., and very free flowering. The buds, leaves, and bark of S. rulgaris contain lilacine, an alkaloid with febrifugal qualities, highly valued in S. Europe.

Lilburne, John (1614-57), an English political agitator and pamphleteer, became the leader ωf 'Levellers,' an ultra-democratic party in the Parliamentary army. He was always in opposition to the govern-ment, being repeatedly whipped, pilloried, and imprisoned under the Star Chamber, and afterwards under Cromwell for his pamphlets. He subsequently became a Quaker.

LEVELLERS.

Lilith (Hebrew, night - monster. night-fairy), a female demon mentioned in the O.T. (Is. xxxiv. 14), translated in English 'screech-owl' or 'night-monster.' The name is probably Babylonian in origin, Lilu and Lilitu being Babylonian sprites that plague men, particularly at night (layil, night). She was believed especially hostile to children, and amulets were worn for protection against her.

Lilium, see Lily.

Liliuokalani (b. 1838), Queen of the Hawaiian Is., sister of King Kalakaua, whom she succeeded in 1891. husband, John O. Dominis of Boston, became governor of Oahu, but after his death the queen, influenced by bad advisers, tried to set up a reactionary constitution for the liberal one of 1887. She was, therefore, deposed by the white population, who set up a republic. The islands were formally annexed to U.S.A. in 1898, and the queen retired to Honolulu.

Lille (ancient Insula; Flemish Rijssel or Ryssel), a first-class fortress and city of France, cap. of Nord dept., on the Deule, 26 m. from Arras. One of the chief manufacturing centres of France, it produces quantities of fiax and hemp-yarn, linen, and cotton goods, thread, tulle, velvet, ribbons. There are numerous bleaching-grounds and beetroot-plantations near by, and machine-shops, soap, dye, and chemiworks, and sugar - refineries. Among its chief public buildings are Univer-

and the Port Beaux Arts best nicture '

Wrested fro

under the most unfavourable con- 19th century) early in the 18th cen-19th century) early in the foun century. Pop. 216,810. See Van Hende, Hist. de Lille, 1874.
Lillebonne (ancient Juliabona), a

tn. of Seine-Inférieure, Normandy, France, 20 m. E. of Havre. Cotton is manufactured. Pop. 6200.

Lillehammer, a tn. on Lake Myösen, Norway, 80 m. N.N.W. of Christi-

ania. Pop. 3000.

Lillencron, Detley, Freiherr von (1844-1909), a German novelist and poet, born in Kiel. He served in the campaigns of 1866 and 1870-71, and held government posts till 1887, when he followed the pursuit of literature. His best work is his poetry: Adjulantritte, Gedichte, Nebel und Sonne: he also wrote novels, including Breide Hummelsbuttel: Der Mäcen; and Kriegsnovellen, and a very popular humorous epic, Poggfred. His Sümmtliche Werke appeared in 14 vols. (1904-5). See Lives (in German) by Bierbaum, Oppenheimer, and Böckel.

Lilleshall, a tn. of Shropshire, 3 m.

S.W. of Newport. Coal and iron are found here. Pop. (1911) 3200.

Lillibullero, the refrain of an Irish revolutionary ballad, words attrib-uted to Lord Wharton and music to The word 'hllibullero' was Purcell. probably used by the Irish Roman Catholics during the Protestant massacres of 1641, and the ballad, a scurrilous attack on the Catholics, helped to bring about the Revolution of 1688.

Lilliput, the name of a fabulous kingdom described in Swift's Gulliver's Travels, 1726. Gulliver was wrecked on its shores, and the inhabitants (Lilliputians) were so diminutive, being merely about the size of a man's finger, that Gulliver seemed a giant to them. Hence as an adjective 'Lilliputian' means tiny, dwarfish.

Lillo, George (1693-1739), an English dramatist, was the son of a Dutch jeweller. His first play was Dutch jeweiler. His first play was produced at Drury Lane in 1730. Of his works, George Barnwell. commended by Pope, and Fatal Curiosity, produced at the Haymarkét by Fielding, are the best known.

Lilly, William (1602-81), an English astrologer, and fortune-teller, satirised in Butler's Hudibras as 'Sidrophel.' He issued a series of yearly almanaes Meglings Anglicus Junior

almanacs Merlinus Anglicus, Junior, 1644-81; Christian Astrology, 1647, the Introd. to Astrology of 1852; True Hist. of Kings James I. and Charles I., 1651. See Autobiography, 1715.

Lily (Lilium), a large genus which defended by Boufflers against Prince includes some of the most beautiful Eugène, but finally yielded (1708). It bulbons plants. There are no true was restored to France (1713), and British species of the genus. The withstood the Austrians (1792), various species grow under widely Vauban built its fortifications (rebuilt) different conditions in most of the warmer parts of the world, but in the Pacific.

do best in ordinary gardens; the best of these is the Madonna L. (L. candidum), with pure white bell-shaped flowers. *L. martagon (Turk's Cap), bears numerous purple or white flowers on tall stems. Other European Ls. are L. croceum and L. bulbiferum, both orange; L. pyrenaicum, with yellow blooms spotted with brown; L. pomponium, producing an umbel of scarlet flowers; and L. chalcedonicum, also scarlet. One of the most popular species is L. auratum, enor-mous numbers of bulbs being imported annually from Japan. It does best when grown, amongst peatloving shrubs. A very early species is L. hansoni, spotted yellow. L. species sum, white and red, is a valuable plant for providing cut flowers, but is much grown also in pots and borders. L. liarinum with its orange red and black blooms, is one of the hardiest, coming up regularly in borders after once being plante a uative of th

large fleshy 309 10 ft. high, and bears numerous trumpet-shaped flowers, white tinged with purple. The bulb dies after

Lily, Giant, or Spear Lily (Dornanthe-

to a pla

times grown in large greenhouses. It bears clusters of scarlet blooms on hugo stems, 10 to 12 ft. tall, in late summer. Old plants throw off suckers very freely, and the plant is easily propagated.

Lily, John, see LYLY.

Lilye (or Lily), William (c.1468-1522), crammarian, born at Odinam, Hampshire. He became headmaster of St. Paul's School. He is reputed to be the first to teach Greek in London. He assisted Colet in compil-ing the Eton Latin Grammar, and published several volumes of Latin verse.

Lily οf the Valley (Convallaria majalis), a native British plant, and much grown in gardens. Its fragrant drooping bells rising from the characteristic leaves are highly decorative. The plant forces exceptionally well, and for this purpose large numbers of crowns are retarded by refrigeration, and from these with gentle heat the flowers can be produced all the year A number of fine varieties have been introduced.

Lima: 1. A maritime dept. of Peru, Limbourg, or Limburg, an old prov. S. America, bounded on the W. by of the Netherlands, divided between

The surface is very position for mountainous, with fertile valleys hoston or a sheltered in the W. Pop. 173,000. 2. Cap. of und a light above and of all Peru, on the Rimac, Ls. usually 6 m. from its port, Callao, on the ns; the best Pacific. Among its chief buildings are the cathedral (begun 1535, rebuilt after the earthquake of 1746), a public library with rare books, the university (1551), and mint (1565). Founded by Pizarro (1535) as Ciudad de los Reyes, it became the seat of the Spanish viceroys of Peru and later capital of the republic. Manuis. include gold lace, glass, pottery, textiles, tobacco, furniture, etc., and silver, copper ore, bark, chinchilla skins, vicuna wool, nitre, soap, and cinchona are exported (mainly from Callao). Pop. about 141,000 (whites, creoles foreigness 141,000 (whites, creoles, foreigners about one-third). See Middendorf, Peru (vol. i.), 1893. 3. Cap. of Allen co., Ohio, U.S.A., on Ottawa R., 72 m. from Toledo. The centre of the Ohio oil-fields, it produces much petroleum. has oil-refineries, steam-engine and motor-car works, and manuts, boilers,

torpedoes, etc. Pop. (1910) 30,508.

Limassol, Limasol, or Limisso, a seaport of S. Cyprus, 38 m. S.W. of Larnaka (Larnaca). It has a good roadstead, exports plaster of Paris, and has much trade in wine, carobtrees, and salt. Richard I. married Berengaria (1191). Pop. 8500.

Limavady (the Dog's Leap), a tn. in co. Londonderry, Ireland, 12 m. W.S.W. of Coleraine. The chief industry is linen-weaving; the flour-mills. Pop. (1911) 2700. there are

Lima Wood, see BRAZIL WOOD.
Limax, see Sluc.
Limb (Lat. limbus, border), in astronomy, the border or edge of the apparent disc of a heavenly body, especially the sun and moon.

Limbach, a tn. in the kingdom of Saxony, Germany, 7 m. N.W. of Chemnitz. It manufs. hosiery, machinery, and gloves. Pop. 16,799.
Limbe, a tn. of Haiti, W. Indies, 12 m. S.W. of Cape Haytien. It is the centre of a cotton and concerning district. Pop. 15,000.

Limber, that part of a gun-carriage,

consisting of two wheels and shafts, to which the horses are harnessed. See

MACHINE GUNS.

Limborch, Philip van (1633-1712), a Dutch Arminian theologian, waborn at Amsterdam. He was pastor at Gouda and Amsterdam, and in 1668 was appointed professor in the Armenian College, Amsterdam. Of his works, the Institutiones Theologica Christiana and the History of the Inquisition have been translated into English.

Holland and Belgium (1839). Belgian L. is a N.E. province, with Dutch Limburg to N. and E., Dutch Limburg to N. and E., Antwerp, Brabant, and Liège to W. and S. The Mass (Meuse) R. forms part of the E. boundary. An agricultural region, it produces beetroot-

cultural region, it produces beetrootsugar, poultry, and horses, and
among its minerals iron, coal, calamine, and turf. Hasselt (capital), St.
Trond, and Tongres are the chief
towns. Area 931 sq. m. Pop. 255,000.
Limburg, a prov. of S.E. Holland
(Netherlands), with Rhenish Prussia
to E., N. Brabant (Netherlands),
Liège, and Limbourg (Belgium) to
N., W., and S. It is drained by the
Meuse and the Roer. In the N. comes
part of an extensive marsh, the Peel. part of an extensive marsh, the Peel. Its cattle are famous, and coal is mined. Maastricht (capital) and Roermond are the chief manufactur-

ing towns. Pop. 332,010.

Limburg-an-der-Lahn, a walled tn. of Hesse-Nassau, Prussia, 22 m. from Wiesbaden. It has a 17th century with seven towers, cathedral mediæval bridge across the river, and is a bishop's see. The Limburger Chronik is in the possession of this town. There are manufs. of tobacco, leather, cloth; breweries, machine and railroad shops. Pop. 10,965.

(Lat. border, edge). scholastic theology, the name applied to the place where departed souls are detained as being unfit to be admitted to the divine vision, and who, nevertheless, have a certain amount of natural goodness and have not offended by any personal act of their own. Dante, in his *Inferno*, describes Limbo as the uppermost of the nine circles subdividing the place of final expiation and doom, the limbus patrum and the limbus infantum containing the spirits of the virtuous heathen and unbaptised infants.

in the pure state does not Lime in the pure state does not exist. Carbonate of L. is obtained by burning limestone in a L. kiln. The carbon dioxide escapes and quicklime, L. shells, burnt L., or caustic L. remains. When wetted, a rise in temperature occurs, and the resulting mass is known as hydrated, slaked, or slack L. In the form of quicklime, L. is most commonly farmers and gardeners. of L. upon soils containing a amount of organic matter is

decomposing organisms. For this reason, L. must only be applied to soils which contain plenty of organic material, such as animal manures or decayed vegetation. On poor light land, L. accentuates the poverty. In addition to this action, freshly slaked

The soils where turnip culture has been impossible owing to club root, applications of L. for two or three successive seasons have made it possible to grow a good crop. Ground limestone, powdered limestone rock, or chalk, is frequently applied to land, and though the action is slower, the ultimate effect is the same. Dressings of marl are applied to land, chiefly for the L. contained in it. Much agri-cultural land still depends for its L. on the heavy dressings applied many years ago. Slaked L., as mixed by builders with sand for mortar and plaster, sets by reason of its loss of water and consequent hardening.

Lime, the fruit of sweet L. (Cirus limetta) and the W. Indian L. (C. medica acida). It is greenish yellow in colour, about 1½ in. in diameter, and almost globular, but with a nipple at the top, and has a smooth, which with the control of the colour state of the colo shiny rind. The juice is very acid, and is much used as a summer drink. C. limetta is a small prickly tree about

10 ft. high, with white blooms. Lime, or Linden, a handsome and useful deciduous tree, Tilia cordata, the small-leaved L., while hardy and quick growing, is cleaner and handsomer than T. vulgaris, the common street tree throughout Europe and in the Berlin promenade, Unter den Linden. T. platuphyllo has large hairy leaves, which often fall in August. L. flowers are very attractive to bees. The wood is finely grained, and much used for toys and cabinet-making. Mats are made from the bark.

Lime-light, an illuminating effect produced by heating lime to an extremely high temperature. The principle of L is based on the fact that calcium oxide, like the alkaline earths generally and the rare earths, withstands the disintegrating effects of heat to a high degree. They are very difficult to fuse, and are bad conductors of heat, so that when intense heat is applied to the surface of one of these substances, the temperature of the area rises immediately to the point at which the radiant energy is emitted in the form of brilliantly white light. This principle has been adopted in the manufacture of gas used by mantles, which are suspended in an on-luminous flame.

Drummond (1797. a light for signalling

organising one, making plant food purposes in which a flame of high available to the crop and burning up temperature impinged upon a small temperature impinged upon a small area in a block of lime. As manufac-tured nowadays, the 'limes' consist of small cylinders with a hole running along the axis, so that a cylinder may be set upon a spindle and caused to revolve at intervals, thus presenting a new area to the flame every L. is of great value as a fungicide. In few minutes. The flame used requires to be at a high temperature, and to of impurities, which affect the colour this end oxygen is combined with of the rock. Pure L. is white; the hydrogen or coal-gas, the more com-plete and rapid exidation of the hydrogen or organic gases producing an enormous liberation of heat. The oxygen and other gas are generally separately, the oxygen provided being contained in metal cylinders under increased pressure, and the coalgas being supplied from the mains. though if this is subjected to high pressure treatment, the illumination is still more intense. The jets are so of oxygen

the nozzle s tube and Cylinders

of mixed gases are employed with excellent results as regards temperature, but there is an element of danger consequent upon the explosive nature of the mixture. L. has been used in the theatre, in signalling apparatus, and in optical or 'magic' lanterns, but for some years the greater convenience of the electric arc, where current is available, has tended to the replacement of the oxy-

hydrogen flame by electricity.

Limerick: l. A western co. of
Ircland, in the prov. of Munster,
bounded N. by the estuary of the
Shannon. The surface is mostly level, but in the S. and S.E. it is hilly, and the Galtee Mts. reach a height of 3015 ft. The principal river is the Shannon, navigable up to L. and famous for its salmon fisheries, Castleconnell being one of the centres. Above L. are the rapids of Doonas and Castleroy. The fertile Golden Vale lies mainly in this county, and the pasturage is excellent, the rearing of cattle, sheep, goats, pigs, and poultry being extensive; oats and potatoes are grown. Woollen goods and paper are manufactured, and there are flour and meal mills. It has two parliamentary divisions, each returning one member. Area 1062 sq. m. Pop. (1911) 142,846. 2. Municipal and parl. bor. and city of above co. It lies on the banks of the Shannon and includes King's Island. It is divided into three parts, English Town on the island, which is the old city, Irish Town, and Newtown Pery, the modern quarter. On King's Island is a fine Norman building. King John's Castle, used as barracks. Lime Water, a solution of calcium The Cathedral of St. Mary on the hydrate. Calcium oxide, or quiekisland dates from 1142. As a port it is the most important on the W. de heat. The const, and the trade is considerable. The beautiful L. lace is made at the Convent of the Good Shepherd. Pop. (calcium hydrate, Ca(OH),). If suffi-(1911) 38,403.

varieties contain a good percentage added in sufficient amount to produce

presence of iron oxides gives a yellowish appearance, iron sulphide causes a bluish colour, and white silicates in crystalline Ls. give rise to many different colours. Silica is often present in stratified Ls. in the form of chert or flints. Magnesian L. contains carbonate of magnesium. Ls. vary in physical properties according to their constitution, but fairly pure L. has a hardness of 3, and a specific gravity of from 2.6 to 2.8. It is not soluble in pure water, but is readily acted upon by dilute acids, and dissolves in water containing carbon dioxide in solution. Water in coming through the air as rain, and in percolating through the soil, dissolves quantities of carbon dioxide which is present as the product of combustion or oxidation. In L. regions the water of springs. streams, etc., wears away the rock in a typical manner. Rounded boulders in the beds of streams, deep channels with occasional pot-holes, underground water-courses, caves, and waterfalls are all characteristic of L. districts. Large quantities of dis-solved L. are carried out to sea, where it becomes the material from which many marine animals construct their shells or skeletons. When the animals die, their skeletonic remains form an ooze at the bottom of the ocean, which, in course of time and with alteration of level, become layers of chalk and L. Chalk is the best-known organic L.. and is made from the shells of certain species of foraminifera. Carboniferous or mountain Ls. contain in addition the remains of coral animals. Oolitic Ls. consist of small rounded grains, and contain many fossils. Besides organic Ls., there are many varieties of crystalline Ls. formed by the effects of neighbouring plutonic intrusions. These lose their organic structure, and are commonly known as marbles. L. may also be deposited from solution without the agency of any animal; in this way stalactites and stalagmites are formed. Ls. are used for the manufacture of lime and cement, as a flux for iron ores, and for building purposes. Crystalline Ls. are used for making statuary and crections of an ornamental nature.

o powder, and slaked lime

cient water be added to bring it to a Limestone, a rock consisting princi- creamy consistency, the product is pally of carbonate of lime. Many called milk of lime: when water is

beds.

grantor may be defeated. (See under person ESTATE as to the words for a grant in suing. fee simple and fee tail; and also under tersimple and the tain, and also under ENTAIL and DE DONIS.) A grant by deed to X without more confers a life estate only; but by the Wills Act, 1837, a devise of real estate without any words of limitation, will, in the absence of an apparent intention to the contrary, pass the whole fee simple (see Land Laws, Estate), or other the whole disposable estate or interest of the testator. As to perpetuities or remoteness of limitation, see under LAND LAWS. See also Remainder-MEN, and REVERSIONERS.

Limitations, Statutes of. It is the policy of the law to impose a time limit on the right to bring actions, not only that there may be some end to litigation, but because, if not, the resulting harm to vested interests that may have grown up in the meantime on the strength of a certain state of circumstances would probably altogether disproportionate to the detriment to the individual who has lost his right of action by lapse of time. The various periods of limita-tion in the different classes of actions are all the creation of Statute law. The common law (q.v.) permitting an action to be maintained at any distance of time from the accrual of the cause of action. The earliest of the S. of L. is that of 1622 which barred all personal actions, i.e. to recover debts on simple contracts (see CONTRACT, DEBT), and torts (civil wrongs) after six years (slander excepted). The Mercantile Law Amendment Act, 1856, extended the Act of

a clear solution, L. W. is formed, 1622 to actions on merchants' L. W. has an alkaline reaction, and accounts. It is to be noted that the has useful medicinal properties.

S. of L. do not, for the most part, ex-Limijord, an arm of the sea bisecting N. Jutland, Denmark, bester the Kattegat and the North seed the Kattegat and the North speaking, be the same, the right may speaking, be the same, the right may speaking, be the same, the right may speaking the statement of the same that the statement is and though the effect may generally speaking, be the same, the right may speaking the statement is a speaking to the same that the statement is a speaking to the same that the statement is a speaking to the same that the statement is a speaking to the same that the statement is a speaking to the same that the statement is a speaking to the same that the statement is a speaking to the same that the same tha Giöl, and Oland are situated in its often be available as a set off, e.g. broader part. There are noted oyster if A sues B on a debt for £50. B can set off a stale debt from A to B; and Limit, a quantity in an endless again a person having an equitable sequence of magnitudes where a (see Equity) charge upon personal property to secure a debt can enforce every member differs from one quantity by a quantity less than any assignable magnitude, this one quantity being known as the L. to guishes title to land where the owner the sequence. In mathematics the being out of possession does not such as the content of the property to secure a debt can enforce his security after the debt itself is barred. But the Real Property Limitation Act, 1874, expressly extinguishes title to land where the owner the sequence. In mathematics the Limitation of Estates, means the marking out by the grantor of land earliest time at which an action could (q.v.), to another or others of the be brought; e.q. if A sells B goods on quantum of estate (q.v.), or interest credit, A's right to sue for the price which each is to take in the land conarises only on the expiration of the veyed. It is advisable always to use credit and the period commences recognised technical expressions in limiting an estate, because unless of the parties to a contract dies before appropriate words of limitation are limiting an estate, because unless of the parties to a contract dies before appropriate words (See under personal representative capable of the price that the words for a grant in suing. Once time begins to run it theory of Ls. plays an important part, to recover his land within twelve Once time begins to run it does so continuously, notwithstanding the happening of something to prevent a person from bringing an action. But a debt may be revived so as to cause the period to begin to run afresh; for, as said above, the debt itself is not extinguished, and a new promise to pay will be inferred from (1) part payment, or (2) a written acknowledgment of indebtedness. But such part payment or acknowledgment must be of such a nature as not to be inconsistent with an implied promise to pay the whole debt, e.g. if the debtor writes, 'I admit I owe the money; but the caced way sold me wrong a bad that I goods you sold me were so bad that I should not think of paying for them, is not sufficient; and again if A owes B £50, and after three years pays £10 on the supposition that that is all he owes, such part payment will not stop the period from running. An acknowledgment or part payment by one of two joint contractors or debtors will bind the other. If an acknowledgment or part payment is made by letter written 'without prejudice,' the continuity of the period will not be broken. An action for injuries to the person (including folse imprison-ment, q.v.) is barred in four years, and an action for slander in two, unless the defamatory (see DEFAMA-TION) words are only actionable on proof of special damage, when the period is six years. Under the Real Property Limitation Act, 1874, actions to recover money secured by mortgage, judgment, or lien, or other-

wise, charged upon or payable out of t land or rent, must be brought within twelve years (subject, of course, to part payment or acknowledgment as above). The same Act imposes a similar period in the right to recover a legacy whether payable out of real or personal estate (unless the legacy is vested in an executor upon an express trust). The period under the Act of 1874 runs from the first accrual of the right of action to the person barred or other person through whom he claims; but if the estate (q.v.) at that date were in remainder or re-(see Remaindermen version and REVERSIONERS) the owner of such contingent estate has either six years from the date he came into possession, or twelve years from the accrual of his right of action, whichever period is longer. The Crown Suits Act, 1769, bars the right of the crown to recover land rents or profits after sixty years adverse possession by a subject (exadverse possession by a subject text so franchises, q.v.), otherwise the S. of L. do not apply to the crown (q.v.). Persons under disability of infancy, insanity, etc., have six years' grace in which to sue after the disability has ceased. A disability arising after the period has begun will not stop the period; nor will ignorance of one's right of action.

tion of 8:9, from the perfect fourth (3:4), thus obtaining the ratio 243:256.

Limoges, a city and military station, cap. of Haute-Vienne, France, 88 m. W. of Clermont-Ferraud, and overlooking the r. b. of the Vienne. Has extensive manufs. of porcelain, woollen fabrics, paper, candles, leather, etc. It has remains of a Roman fountain and amphitheatre, and an old cathedral commenced in 1273. Pop. 90,000.

Limon, or Port Limon, a scaport tn. of Costa Rica, Central America, 72 m. Possesses a fine E. of San José. Possesses a fine harbour. Exports rubber, dyewoods,

coffee, and bananas. Pop. 5300.
Limonia, a genus of rutaceous plants found in Africa and Asia. The species, of which half a dozen are are shrubs, some having thorns in their leaf-axils. L. acidis-sima is a white-flowered shrub, and River, an important riv. of S. Africa, its berries are used in Japan in place rising in the Magaliesberg to the of soan of soap

Limonite, Brown Iron Ore, Brown Hematite, or Bog Iron Ore, a ferric hydrate with the formula 2Fe₂O₂.3H₂O. It does not occur crystalline, but is found in fibrous, earthy or con-cretionary masses. Its colour ranges cretionary masses. Its colour ranges from yellow to dark brown, and its streak is distinctly yellowish. It has a specific gravity of 3½ to 4, and a hardness of 5½. It is often formed from other oxides or pyrites by the influence of the weather, and is therefore found on the outerop of other iron ores. Its occurrence in bog or meadow land has given rise to the name 'bog iron ore.' Yellow ochre is clay mixed with L. Abundant deposits of L. have been found in the oolites and other sedimentary rocks.

Limousin, an ancient prov. Limousin, an ancient prov. or Central France, now forming the dept. of Corrèze and part of Haute-Vienne. In 1152 it came into the possession of the English, Henry II. acquiring it with Eleanor of Aquitaine as part of her dowry; but in 1369 it was restored to France. Cap. Limoges.

Limousin (or Limosin), Leonard (c. 1505-c. 1577), a French enamel painter and engraver, born Limoges, one of the celebrated family of seven Limoges enamel painters, famed for this special branch of art for many centuries. He was painter to Francis I. and Henry II., and for both monarchs executed many por-traits in enamel. Some of his best Limited Liability, see Company—

traits in enamel. Some of his best work is to be seen at the Louvres, private Companies.

Limma (Lat. leimma from leipein, traits, including those of Marguerite to leave), an interval in the musical de Valois and the due de Guise, system of the ancient Greeks, which frine examples of his work are also does not appear in modern music by to be seen at the Wallace Collection reason of its smallness. The Greeks and Victoria and Albert Museum, determined the L. by subtracting London. See E. Molinier, L'Emailtupe of \$2.0 from the perfect fourth.

Limoux, a tn. in dept. of Aude, France, 13 m. S.S.W. of Carcassonne. Trades in wine, cloth, corn, and manufs. hats, blouses, etc. Pop. 7200.

Limpets, gasteropod molluses with oval tent-shaped shells firmly attached to rocks or stones. The adhesion is made with a circular mass of muscle which when raised in the centre forms a sucker. The shell is lined with a fringed mantle which bears a circlet of folds that take the pears a circlet of folias that take the place of the gills of other molluses. Within the L's mouth lies a long radula or spiny tongue armed with about 2000 glassy hooks. This is used to collect vegetable food. Patella vulgala, the common L., is widely distributed on British and other rocky coasts. Some tropical species attain coasts. Some tropical species attain great size.

W. of Pretoria in the Transvaal.

on his return he was made court physician to Henry VII., and subsequently to Henry VIII. and Mary. In 1503 he took orders and became rector of Mersham and prebend of Wells. His chief works are his Latin translations from Galen, amongst them being De Temperamentis and De Methedo Medini. He was among the first to teach Greek at Oxford, where Erasmus and Sir Thomas More were among his pupils. See Life by Johnson, 1835.

Linares: I. A tn. of Spain, 23 m. N.E. of Jaen. It has rich mines, worked from ancient times, of argentiferous lead and copper, employing nearly 20,000 people, yielding some 670,000 ozs. of silver and 126,000 tons of lead ore annually. It has manufs, of sheet-lead, pipes, rope, and explosives. Pop. 48,000. 2. A tn. of Mexico, prov. Nuevo Leon, 65 m. S.E. of Monterey. Gives its name to a bishop's see. Pop. 20,000. 3. Au inland prov. of Chile with an area of 1010. 3940 sq. m. It is barren and arid in the centre, but fertile in the N. Several volcanic peaks are in the neighbourhood, and the headwaters of the R. Maule

about 110,000. 166 m. S.S.W. of Santiago. Pop. about 10,000.

Linas, or Lynas Point, a cape off the N. of Anglesey, N. Wales, 2 m. E. of Amlwch. It has a lighthouse 128 ft. high, and is a signalling station for Liverpool vessels.

Lincluden, a ruined abbey, originally founded as a convent of Benedictine monks in the 12th century by Uchtred, Lord of Galloway. It is

sh of Terregles, tland, 11 m.

Lincoln: 1. A parl., municipal, Nebraska Bill repealing the Missouri and co. bor. and city of I of co. of Lincolnshire, on It was a Roman station a mercially important at

mercially important at Conquest. Lincoln Cathedral was for L. national fame. In February founded about 1075, and is the most 1860, he made his famous speech at striking feature of the town. It is in Cooper Union, New York, which led the Gothic style, and is about 480 ft. to his nomination for the presidency long and 80 ft. wide. 'Great Tom of Lincoln,' its famous bell, weighs March 4, 1861, L. was inaugurated 5 tons 8 cwts. L.'s principal manufs. 'as president. The immediate result

It flows in a semicircular course, forming the boundary between British S. Machinery, and it carries on an Africa and the S. African Republic. active trade in grain and wool. It Africa and the S. African Republic. Average of the State of 200 tons are able to navigate it for 60 m., but its mouth is obstructed by sand-bars. Its principal tributary is the Olifants. It has a total length of about 1000 m.

Limulus, see King Cran.

Linacre (or Lynaker), Thomas (c. 1460-1524), an English physician, humanist, and divine, born at Canterbury. He visited Europe and to his return he was made court now accommodating over 3200 sturners. now accommodating over 3200 students. Pop. 43,973. 4. A city of Logan co., Illinois, U.S.A., 29 m. N.E. by N. of Springfield. The chief industry is coal mining. L. is the scat of the Cumberland University. Pop. (1910) 10.892

Lincoln, Abraham (1809-65), sixteenth president of the United States, born on Rock Spring Farm, Hardin (now Larue) co., Kentucky, where he worked with his father as an ordinary worked with his father as an ordinary farm hand until he was nineteen. While working in various capacities he took up politics. In 1834 he was elected member of the Illinois House of Representatives, in which he remained until 1842, becoming a power in the House and concentrating his program on interval impropersion. energies on internal improvements. During this period he made his first pronouncement against slavery, which was the central question of his During this time brilliant career. also he had studied law and was admitted to the bar in September 1836. In 1837 he went to Springfield, and until 1841 practised at the bar as partner to J. T. Stuart, then for two

he was junior partner to S. T. and from 1843 until 1865 he ior partner of W. H. Hendon. His career at the bar was most distinguished, and he became one of the leading barristers in Illinois. 1842 he refused further nomination for the state legislature with a view to putting up for Congress, but it was not until 1846 that he was elected. It was then that he introduced his first bill on the slave ques-tion, dealing with slaves in the district of Columbia. He had become a very eloquent speaker, and when, in 1854, the slave question was again reopened by Douglas's Kansas-

> ter able to oppose of public debates ollowed, winning

deuit

of his election was the breaking out | Lincoln of the Civil War. The states, S. Carolina and states, seeded from th styling themselves 'The Confederate States of America,' elected Jefferson Davis as their president and prepared for war. In his inaugural address, L. denied their right to secode, and announced his determination to preserve the Union at all costs. From the first the slavery question was the main difficulty of the war. In January 1863, L. issued a proclamation, freeing all slaves in the Confederate at federate states, and another following it (1864) made all the slaves in the Union free. Throughout the war his tact and diplomacy were unrivalled, and his masterly grip of the whole situation averted foreign complications which might have proved plications which might have proved disastrous. In 1864 he was re-elected president, beginning his term of office March 1865, and the war came to an end in April of the same year. On the evening of April 11, L. made his last public speech; three nights later he was assassinated by John Wilkes Rooth on earth while attend. Wilkes Booth, an actor, while attending a performance at the Ford Theatre. L.'s extraordinary knowledge of human nature, his keen perception and fair mindedness fitted him for a task which few could have fulfilled so well. He had a 'genius for expression' which made him one of the most famous orators the world has ever known; his speech on the occasion of the dedication of the attlefield of Gettysburg as a soldiers' cemetery (November 1863) having become a classic in American literature. He married, in November 1842, Mary Todd (1818-82), and of his four sons one only carriered him.

Lincoln, Benjamin (1733-1810), an American general, born at Hingham, nt in the Rethe siege of

t him in com-

sons one only survived him.

to force the British fleet out of Boston harbour, which he successfully accomplished, but in 1779 he was unsuccessful in besieging Savannah. In 1786-87 he comman against

two yea of the Port of Boston.

Lincoinshire, an east Lincoinshire, an east Lincoinshire, an east Lincoinshire, an east of Oxford University, founded in 1427 by Richard Fleming, Bishop of Lincoin, and reorganised by Thomas Rotherham, Archbishop of York, and lord high chancellor in 1479, who thus carned for himself the title of second founder. John Wesley, Lord represently is flat, a consisting and the Humber, nearly coast, mostly marshy, some stretches of sand. second founder. John Wesley, Lord generally is flat, a considerable part Crewe, John Morley, and James being fens and marshes, but there Cotter Morrison were distinguished are two ranges of hills, the Lincoln members of the college.

of Edward King, being cited before the Archbishop of Canterbury (Dr. Benson) to answer charges of various ritual offences committed at the administration of Holy Communion in the Church of St. Peter-at-Gowts and in Lincoln Cathedral in Dec. of that year. Proceedings were commenced in June 1888 by a peti-tion presented by the promoters (two of whom were inhabitants of the diocese of Lincoln, and two parishioners of St. Peter-at-Gowts) to the archbishop. The matter was referred to a committee and the case then remitted to Dr. Benson, who heard it in Lambeth Palace on Feb. 12, 1889. The offences alleged against the Bishop of Lincoln were, for the most part, breaches of various rubrics in the Communion various rubrics in the Communion service of the Prayer-Book, viz. the mixing of water with the wine, the non-visibility of the performance of the manual acts, the making of the sign of the cross at the benediction, etc. It was argued that a bishop is not a 'minister' and thus not bound by the rubrics. Judgment was given by the archbishop in Nov. 1890, but he confined himself to the legal declarations, and pronounced no monition on the Bishop of Lincoln in tion on the Bishop of Lincoln in respect of the breaches of eccle-siastical law committed by him. The promoters appealed to the Judicial Committee and their appeal was heard in 1891, judgment being given in August 1892, and the appeal failing on all points. The case has a persecutive inventions first because manent importance, first, because certain disputed questions of ritual were legally decided, and, secondly, because the jurisdiction of the Archbishop of Canterbury to try one of his suffragan bishops for alleged eccle-

y . . .

suntagan offences, alone, was declared to be well founded and legal.
Lincoln Mount, a peak 14,297 ft. high in the Park Range of the Rocky Mts., Colorado, U.S.A. There are silver-mining works at the summit, to which a railway has been constructed. and there are two meteorological stations, one conducted by Harvard

College.

Lincolnshire, an eastern co. of England, bounded E. by the German Ocean and the Wash. It is the second largest county in England, possesses, including the shore nearly 110 m. αf W. running from Grantham to Lincoln and on again to the Humber, and the Wolds running from Spilsby to Barton-on-Humber. The principal rivers are the Humber, Trent, Witham, and Welland. The Isle of Axholme, the Vale of Ancholme, and a good deal of the county to the S.E. of Lincoln is occupied by the Fense Rever, and Spizzon (novels); and Die (q.v.). The soil as a whole is rich, and it is one of the first agricultural counties in England. A quantity of grain is grown, the largest cropbeing barley, and cattle and sheep are reared in large numbers, also a fine breed of horses. Limestone, the manufactures are not very Linden, at in the prov. of Hanbut the manufactures are not very implement factories, and also brickfields. It is divided into seven parlia-

RACE MEETINGS.

Lincoln's Inn, see INNS OF COURT. Lind, Johanna Maria, better known as Jenny Lind, and afterwards as Jenny Lind - Goldschmidt Madame (1820-87), a singer, born at Stockholm. At the Royal Theatre in Stockholm she made her début in 1838 as Agathe in Der Freischütz. was at once successful, but after two years' work decided to continue her studies for a while under Manuel She aroused tremendous enthusiasm, and became a nonular heroine. In and became a popular heroine. 1852 she married Otto Goldschmidt of Hamburg. She had before this (in 1849) retired from the operatic stage, but she continued to sing at concerts wrote until 1883. In 1859 she had become Britain. a naturalised British subject. There

the Nagot of the Disseldorf Zeitung. He on the Law of Partnership, including then went to Berlin, and in 1866 to its Application to Joint Stock and Elberfeld, where he edited the Elber-other Companies, 1893. felder Zeitung. In 1869 he founded Das Neue Blott at Leipzig, and three English civil engineer, born in Lon-years later. Die German and Parlin. don. In 1838, after travelling in He also d in various parts of Europe, engaged 1878, wh

W. running from Grantham to Lin-is the author of numerous works,

but the manufactures are not very Linden, a tn. in the prov. of Han-considerable; there are machine and over, and a suburb of the city. Has iron-foundries, textile mills, and rubber and chemical works, and manumentary divisions, each returning factures textiles, ultramarine, and one member. Area 2607 sq. m. Pop. artificial manures. Pop. 73,352. 2. (1911) 557,543.

Lincolnshire Handicap, The, see E.S.E. of Essen. Has machine shops and iron-foundries. Coal is also mined here. Pop. 11,974. Linden Tree, see LIME.

Lindlar, a vil. in the Rhine prov. of Prussia, 20 m. N.E. of Cologne. iron works and iron and lead mines. Pop. 6669.

Lindley, John (1799-1865), an English botanist, born at Cathon, near Norwich. In 1819 he published Observations on the Structure of Fruits (a translation from the French), fol-She sang in the principal lowed the next year by an original cities on the Continent, but it was work, Monographia Rosarum. In not until 1847 that 'the Swedish 1829 he became professor of botany nightingale,' as she was called, ap- at University College, London, and peared before a London audience, lecturer to the Apothecaries' Company. Amongst his principal publica-tions are: Synopsis of the British Flora. The Theory and Practice of Horticulture, and Flora Medica. In conjunction with Hutton he wrote The Fossil Flora of

Lindley, Nathaniel, Baron Lindley (b. 1828), an English jurist, born at Acton Green, Middlesex. He was the internal set of the state o important fisheries and the imagination and scarry on an active trade. The was raised to the Court of Appeal and a privy councillor. He succhief building of interest is the made a privy councillor. He succhief building of interest is the made a privy councillor. He sucched been restored. Pop. 6620.

Rolls in 1897, and three years later was created Baron Lindley. His critic, dramatist, and novelist, born publications are: An Introduction to at Magdeburg. In 1863 he became the Study of Jurisprudence, and Treatise

Lindley, William (1808-1900), an

engineer to the Hamburg-Bergedorf Railway. He began by constructing a complete sewerage system, proved to be beneficial, and between 1844 and 1848 designed the Hamburg water-works. He also designed the rebuilding of Hamburg after the fire of 1842, erected the gas-works, and executed the trigono-

metrical survey of the city (1848-60). Lindo, Mark Prager (1819-79), a Dutch prose writer, of English parentage, born in London. Went to Holage, born in London. land at the age of nineteen and set up as a private teacher of English. In 1853 was appointed teacher of English language and literature at the In Royal Military Academy in Breda, a post he continued to fill till 1865. Wrote sketches for the Arnhemsche Courant, afterwards published book form as Kompleete Werken van den onder heer Smits. In 1856 he founded the Nederlandsche Speciator, in which much of his best work appeared. L's chief serious original Dutch writing was Dc Opkomst en Ontwekkeling van het Engelsche Volk,

a valuable history.
Lindsay, a tn. in Victoria co., Ontario, Canada, 70 m. N.E. of Toronto. Manufactures carriages, leather. agricultural implements, etc., and has a tannery and saw mills. Pop.

7500.

Lindsay, Lady Anne, see BARNARD, LADY ANNE.

Lindsay (or Lyndesay), Sir David (1490-1555), a Scottish poet and Lyon King-of-arms, born at Garmylton, near Haddington. He was attached to the Scottish court in 1508, and later became an usher to James V. of Scotland, holding this position till 1522. From his writings it is evident that although L. took part in the court life his sympathies were with the people, and he was not afraid of rebuking the vices of the young king, with whom, notwithstanding, he was a favourite. The Testament and Complaynt of our Soverane Lordis Papyngo was written by L. as a satire on the court, prelates, and nobles, and the King's Flyting as a rebuke of the king's licentiousness. His earliest poem is The Dreme (c. 1528), an allegory in the style of Chaucer, written in the seven line stanza. L.'s fan morality plan de Schwarzh T

Estatis, peared in n is The Monarchie, giving an account of the rise and fall of Syria, Persia, Greece, and Rome. Others include The Complaynt of Basche, the Kingis audd Hounde, to Barctie, the Kingis best belowit Dog, and his Companions. Killie's Confessions; and Ane. scription of Peter Coffer. See Tytler's Life of Lyndsay.

Lindsay, James Bowman (1799-1862), a Scottish scientist, born at Carmylic, Forfarshire. In 1834 he Carmylic, Forfarshire. In 1834 he discovered the heating and lighting capabilities of electricity, and was also a pioneer of wireless telegraphy. The latter part of his life was entirely devoted to scientific pursuits, and during this time he lived in extreme penury; but in spite of his poor circumstances, he left a library valued at £1300. See Robertson's James Bowman Lindsay.

Lindsay, Robert of Pitscottie (c. 1500c. 1578), a Scottish historian and chronicler, called from his birthplace, Pitscottie, Ceres, Fifeshire. Little of a definite nature is known about his life, but his History or Chronicle discloses him to be a man of distinct humour and strong character, and in the preface to same he states that he continuing Hector Bocce's and John Bellenden's Latin History of Souldad. L.'s History was first published by Robert Freebairn, the printer, in 1720, later editions appearing in 1749, 1778, and 1814. It covers a period of Scottish history, about the earlier part of which very little is proving a period of the control of the province known, and parts of it are said to have been largely used by modern Scottish historians and by Sir Walter Scott in his novel, Marmion. Though untrustworthy as a history for definite facts, it is practically indispensable to the student of Scottish history by reason of its representation of Scottish character and narratives abounding in picturesque detail.

Lindsaya, a genus of Polypodiacere, occurs chiefly in tropical countries. There are fifty species, several of which, e.g. L. Guianensis, are cultivated in Britain.

Lindsays, Earls of Crawford and Balcarres, see CRAWFORD AND BAL-CARRES, EARLS OF.

Lindsey, Parts of, a dist. of Lincoln-shire, the largest of the three administrative divisions of the county occupying the northern half, all known as 'parts.' The S.E. district is called 'Parts of Holland,' and the S.W. 'Parts of Kesteven.'

Lindsey, Theophilus (1723-1808), an English unitarian, born at Middle-wich, Cheshire. His chief work is: An Historical View of the State of the and Worship from our own Times.

r. lique), a measure of length, the tweath part of an inch, now only used technically, e.g. The numbers indicate the quantity of "lines" in diameter.'

Linea, or La Linea, a tn. in prov. of Cadiz, Spain, 4 m. S.E. of San Roque.

Pop. 30,000.

Linen, yarns and fabrics spun and woven from the fibres of flax (Linum usitatissimum) are all comprehended

from 2 to 3 ft. high. It is cultivated widely in Europe, Asia, and America. The manufacture of L. was one of the most widely spread and extensive industries of European countries from quite early times. Egypt, too, was long celebrated for its Ls.; many L. mummy cloths of fine texture and great age having been found there.
The cultivation of flax was extensive in Italy shortly before the Christian era, and it was probably introduced into Britain for textile purposes by the Romans. In recent times it has ceased to be a domestic industry, and has become an important textile manufacture in certain districts. The inventions of Arkwright, Hargreaves, and Crompton in the latter half of the 18th century, were a blow to the L. trade as it then existed. In 1787 the foundation of machine spinning of flax was laid by John Kendrew, and Thomas Porthouse of Darlington, who obtained a patent for the first mill for spinning yarn by machinery, which was built at Darlington. Their invention ultimately developed into the present-day perfect system of ma-chinery, although the weaving of L. yarn by power loom was of slower growth than that of cotton, the first really successful factory for the former not being erected till 1812. The modern manufacture of L. is divided into two branches, viz. spinning and weaving, apart from bleaching and numerous finishing processes. After the flax fibre is received in bundles from the mill, where it gets a rough sorting, its manufacture into yarn comprises the operations of (a) heckling; (b) preparing; and (c) spinning. The first-named process consists of (i) (i) (ii) (ii) (iii) (iii originally performed by hand, and is so still in Ireland and in some continental mills. The 'heckler' takes a handful of flax by the middle and draws the root-end several times through the heckle-teeth, an oblong stock of wood with strong steel teeth inserted, then reversing the handful and heckling the opposite end in a similar fashion. The flax is then subjected to the same process on a heckle with finer teeth, the object being to separate the fiax into 'line,' the best portion, and 'tow,' the short and Nowadays hecklingravelled end. machines are extensively employed in the place of hand-heckles. (b) Preus operations no into quali · it i to certain treatment on unerent

England, Le centres of th value of L. manufactures exported is about £6,000,000. On the Continent L. is manufactured in France, Beigium, and Germany. See Warden's Linen Trade, Ancient and Modern.

in the manu

Line of Communications, the routes by which, in war time, supplies and ammunition are conveyed from the base of operations to the main body of the army. The direction in which the army is preparing to move forward is termed the line of operations; thus, the latter is followed up olosely by the L. of C. which grows in length,

which they were campaigning for their supplies. When one part of the country was no longer able to support it, the army moved on, thus leaving in its train, in the majority of cases, a blighted, devastated country-side. The introduction of Ls. of C. brought about a revolution in the art Strategetical movements tegy. will operations have always, from the y beginnings of war, depended ultimately upon the question of supplies. An army travels on its belly, as Frederick the Great is reported to have said, and Napoleon's dictum that 'the secret of war lies in the communications' embodies the same truth. Thus, the L. of C. became the all-important factor, for an army can be either forced out of a strong position or checked in its advance when its L. of C. is threatened or cut. Such a procedure would appear at first sight to be quite feasible, and indeed easy, by despatching bodies of cavalry round the front of the opposing army to fail on the comparatively unguarded roads which form the line of supply. But in the case of an invading army in a foreign country, the difficulty of obtaining information, the possibility of error in the route, machines, viz. the spreading-frame, etc., render it an extremely hazardous proceeding. army can land from the sea at a point near to a L. of C., especially if not well defended, it may force the projects enemy to renounce any against distant points, as the occupation of Pleona stopped the advance of the Russians through Bulgaria. At the present time, Ls. of C. may consist either of the roads of a country, the rivers, the railways, or of the open sea. The roads are of course often used in addition to the others, but regarded as the main L. of C. they are slow and hard to defend. Rivers have many points to but regarded as the main recommend them, being safer and surer than both roads and railways. but they are not always to be found. Railways can supply the needs of an army very quickly, but have several attendant disadvantages. The bed of the railway is easily wrecked, the army relying on them is too ham-pered in its sphere of action, and as the carrying power of every railway is known, a surprise attack cannot be successfully carried out when properly opposed, as Moltke showed in 1870. The sea is the L. of C. par excellence when it is available, as by its use secrecy and freedom of movement can be obtained, and the enemy kept in a continual state of suspense. As has been seen, on the efficiency of its L. of C. depends the efficiency of an army, but if a general is able to cut loose from his L. of C. and change it at will, he gains thereby an enormous advantage, as both Grant and Sherman showed in the American Civil War.

Lines of Entrenchment are the different routes by which the besiegers invest a besieged town. The general

sieges si: icct to

local pecunarities, etc. It was principally owing to the genius in siege-eraft of Vauban that such a degree of mothod was introduced; his skill was such that it was said when he beseigned a place—place assigner, place prise. The line or parallel is dug just beyond the limits of a sortic, and consists of a continuous L. of E. facing coussiss of a continuous L. of E. Iacing in 1806 he published The Antiquities of the point or points of attack. It is from 12 to 15 ft. wide and 3 ft. deep, with a parapet of excavated earth of from 3 to 4 ft. high. Approach from the first parallel, in a zigzag direction to prevent enfiladement, and the second the constant of Luzon, Philippine Is. The and the second the constant of Luzon, Philippine Is. The const of Luzon, Philippine Is. The const of Luzon, a dist. of Luzon, and, a dist. of Luzon, 300 or 400 yds attack. Short

parallels ' ure . parallels and the covered way, whilst 22,000. the third parallel is constructed at the Lingen, a tn. on the R. Ems, in the VIII

If, however, an foot of the glacis, and from it the final attack is made. Occasionally parallels are constructed four slightly shorter intervals. trenches and parapets increase in strength as the distance from the besleged place decreases. Trenches may be constructed either by common trench work, flying trench work, or sap. Ligne's parallels were first used sap. Ligne's parallels were made by Vauban at the siege of Naestricht by Vaul in 1673.

Line Spectrum, see Spectrum. Ling, see Calluna Vulgaris. Ling (Molva vulgaris), a wide-ranging fish of the Gadidæ, cod family. It is from 3 to 4 ft. long, and is orange-grey, or bluish on the back and sides, and silvery on the belly. The cordal and sivery of the beny. The corain in is rounded at the extremity as in the Turbot. When fresh, it is not much valued for food, but cured and dried it is consumed in great quantities in Southern Europe. The roes sometimes attain a great weight, and the female is one of the most prolific fish known. The liver yields an oil

cod-liver oil as a medicine. Lingah, or Bander Lingah, a scaport tn. of Persia, in the prov. of Laristan on the Persian Gulf. There is a good harbour, and the anchorage is excellent owing to the depth of the water a comparatively short distance from

which has been used as a luminant, and is sometimes substituted for

a comparatively short distance from land. Pop. 15,000.
Linga Puja, a form of phallic worship practised among the Hindus. The Linga, or emblem of the male generative organ is the symbol of Siva, under which form that god is worshipped. The female counterpart is called the Yoni, and the two are grouped together as the Sakit Puja. It would appear that the meaning of the phallus emblem is little understood by the ordinary people, and in stood by the ordinary people, and in spite of its use, the worship of Siva is decent and decorous compared with

some of the other Indian cults.

Lingard, John (1771-1851), an historian, studied at English Roman
Catholic College at Douay, and was
from 1795 until 1811 vice-president of Crookhall College, near Durham. In 1806 he published The Antiquities

en, and is situated on io gulf, 100 m. N.N.W climate is good, and ly cultivated. Pop.

Lingua Franca, the language adopted

by traders in the Mediterranean, and is really a corrupt form of Italian. This term is now applied to any language which is adopted for commercial purposes, such as pidgin-English in China.

Linguaglossa, a tn. in the prov. of Catania, Sicily, on the N.E. slope of Mt. Etna. Pop. 13,102.

Linguists, Institute of, was founded in 1910 with the object of promoting the knowledge and use of modern languages. It consists of two kinds of members, honorary members, who are nominated by the council, and associate members. These latter are only eligible after having passed the necessary tests, and must have a practical knowledge of the spoken language, being able to correspond and converse freely in it.

Lingula, a genus of Brachiopods, with an oblong duck-bill-shaped shell. Shells of L. occur in the earliest Palæozoic strata which exactly resemble living forms, a remarkable

persistence of type.

Lingula Flags, The, are fossiliferous geological strata of Cambrian forma-

tion found in Wales.

Linievitch, Nicolai Petrovitch 1834), a Russian general, was by birth a Polish Catholic. He joined the army and took part in the insurrection of Poland, the war against the Turks, and the expedition against When his country went to war with Japan he was promoted to high commands. He led the left against Kuroki in the battle of Mukden (1905), when the enemy was victorious, and for a brief was victorious, and for a brief space succeeded Kuropatkin as commander-in-chief.

Liniments, or Embrocations, compounds of oils and alkalies, and being of a slighter consistency than ointments, rub more easily into the skin.

Linköping, the cap. of Ostergötland in Sweden, 142 m. from Stockholm. It has a fine museum and a cathedral only second in importance to Upsala

Cathedral. Pop. 18,000.

Linley, Thomas (1732-95), an English musical composer, born at Wells in Somerset. In 1775 he came to He supplied the for many years. music to Sheridan's well as to other or chiefly memorable

kingdom of Hanover, Germany, 43 m. lish musical composer, and is chiefly N.N.W. of Münster. Pop. 8021. Linggi, The, a riv. in the Malay songs. In 1816 he produced an Peninsula, in the extreme S. of Asia. edition of all Shakespeare's dramatic songs which had been set to music.

Linlithgow, the cap. of the co. of Limitingowshire in Scotland, is a royal parliamentary burgh. It lies in a valley overlooking a loch 102 acres in extent. and is 17½ m. W. of Edinburgh. Limitingow Palace was the birthplace of Mary Queen of Scots, and is a quadrangle encircling an acre of ground overlooking the lake. It is a massive edifice, crowned at each end by a tower Pop. (1911)

4002. Linlithgow, John Adrian Louis Hope, first Marquis of (1860-1908), the son of the sixth Earl of Hope-toun, received, in 1902, the title of Marquis of Linlithgow as a mark of Adrian appreciation for the valuable services rendered by him as first governor of the commonwealth of Australia. He died six years afterwards, when his eldest son succeeded him as second marquis. The earldom of L. was a title held by the Livingstones in the beginning of the 17th century, some of whom also held the title of Earl of

Callender. See HOPETOUN.

Linlithgowshire, or West Lothian, a S.E. co. of Scotland, bounded N. by the Firth of Forth. Near the coast the surface is flat, rising towards the S., which contains a number of hills, the highest of which is Knock (1017 ft.). The chief rivers are the Almond, with its tributary, and the Avon. The only loch is that of Linlithgow. Most of the county is under cultivation, and agriculture thrives; the main crop is oats, but barley and wheat are also grown, also potatoes and turnips. Cattle are reared in small numbers, and dairy farming flourishes in places. Coal is found at Bo'ness and Bathgate, and a large trade is done in shale-oil at Dalmeny, Brox-burn, etc. There are also extensive iron works and blast furnaces at Kinneil, Whitburn, etc. Fireclay, ironstone, limestone, and freestone are also worked. It returns one member to parliament. Interesting Roman remains have been found in many places. The area is 120 sq. m. Pop. (1911) 79,456.

Linnæa Borealis, named after Lin-In Somerset. In 1775 he came to news, with his consent and choice. It London, where he remained as musi- is a trailing evergreen with thick, cal director of Drury Lane Theatre opposite, ovate leaves and peduncles bell-shaped drooping pink without and crimson

Though a native of Britain y fruits. It is suitable for a

settings to songs, and his music is shady rockery with peaty soil.

Sweet and melodious. Linnæus (or von Linné), Carl (1707-Linley, William (b. 1767), born at 78), a Swedish botanist, born at Rash-Bath, the son of Thomas L., the Eng- ult in Sweden. He was intended for 515

the Church, but his leanings towards given some fine examples of simple botany led to his appointment to the scenes and glorious sunsets. charge of Professor Rudbeck's botanical gardens and deputy lecturer for Rudbeck in 1730. From the age of twenty-four he began to work at his famous classification of plants according to their reproductive organs, which he began to describe in his Hortus Uplandicus. In 1732 he undertook botanical explorations through Lapland and Dalecarlia, and in 1735 he went to Holland, where he met Gronovius and Boerhaave. While in Holland he completed his Systema Naturæ, Fundamenta Botanica, and Genera Plantarum. In 1736 ho visited England and

Bibliotheca Botanica Bolanica and Class (1738), Philosophia B and Species Plantarur

contributions to natural history, more especially botany, are of great value. Although much of his work consisted of the summing up of conclusions already reached by his predecessors, and although his classifications are sometimes at fault, the passion for drew which he introduced into nothing and his tare descriptions and his tare descriptions and his tare descriptions and his tare descriptions are sometimes as fault, the passion for limited and his tare description of classification was based upon 's linear description of pistils and sta

tion of pistils and sta

genera and species and the uniform use of specific names. His style is a model of brevity and precision, with no possibility of ambiguous meaning; he methodically treated of each organ m as proper turn and used a special term for each, which nover varied in meaning. See Sach's History of Bolany, 1875 (Eug. trans. 1889); Carus's Geschichte der Zoologie, 1872; Linne and L

and in Malmsten (1879).

Linotype, see Type - setting Linotype, see Type - setting Linotype, see Type - setting Machines. in 1788 by Sir J. E. Smith in commencation of the celebrated botantist, Carl Linneus. Appointed president, Sir J. E. Smith bought all the bishop of Goa on his mission to books, MSS., and botanical specimens. India. He also went on an expedition belonging to Linotype.

books, MSS., and botament speciments, finding the also went of an expectation belonging to Linneus, and presented to China, trying to discover a new them to the Society in 1828.

Linnell, John (1792-1882), an subject of navigation.

English painter, who is chiefly known: Linseed, the seed of the common for his painting of landscapes. He flax plant or lint, and is used for had a true feeling for nature, and has making L. oil and oil cakes. The

executed portraits and engravings, and sometimes chose religious sub-

jects for his canvas.

bird, belongs to Linnet, a small the Fringilla cannabina of Linneus, Linota cannabina of modern ornithologists. It resembles the finch family, and is very abundant in Britain, Europe, Asia, and N.W. Africa. It received the name L. partly from its partiality for the seed of the flax plant (Linum), but it feeds readily on other seeds. The colours red, grey, or brown indicate the sex as well as Returner, Fundamenta Botanica, and of brown indicate the sex as well as Genera Plandarum. In 1736 ho visited the seasonal changes. The L. barely England and Sweden in 17 measures 6 in. in length, begins to breed in April, and generally chooses some low-lying bush for its home. The In 1741 he became professor of leggs, ranging from four to six in botany at Upsala. Besides the work and in the purplish brown. Stillichter, Belging and Lord a leggs in the tytic four

. Loch, a large inlet with four nlets on the W. coast of and situated between the

by saponifying the oil soda.

Linoleum, a preparation of linsced oil which has become solidified when mixed with chloride of sulphur, and it depends upon the proportions used as to what consistency of substance will be produced. L. can also be produced by means of a heating and drying process without the addition of chloride of sulphur. The preparation thus obtained, if crushed, then pressed between hot rollers, helps, with the addition of chellers. with the addition of shellac naptha, to manufacture new articles, such as waterproof fabrics, carriage aprons, tank linings, etc. But the word L. now chiefly applies to a substance called floor-cloth (q.r.).

sec Type - SETTING Linotype,

seeds are a transparent brown and ously), 1899. There is a biography of a narrow oval shape. The L. oil by G. S. Layard, 1891. is obtained from the innermost coatthin layer of albumen containing a pair of large oily cotyledons. L. is valuable food for cattle and poultry. It is used for poultices. but should never be applied to open wounds.

Linseed Oil is made by the process of pressing the seeds either with or without heat. The seeds are first bruised or crushed, then ground, and finally subjected to pressure in a hydraulic or screw press. The cold-drawn oil is purer than that obtained orawn on is purer than that obtained by means of steam, and yields 18 to 20 per cent. oil. L. O. obtained by steam heat of about 200 degrees, yields 22 to 27 per cent. oil, but is more rancid in quality. Cold pressing of the seeds yields an amber-coloured oil which is edible. The oil yielded by the steam process is a yellowich. by the steam process is a yellowishbrown, but if stored, all moisture and mucilaginous matter gradually settle out; this kind of oil is used for varnish-making. Edible oil has a somewhat peculiar and unpleasant smell and flavour. Both raw and boiled oil are used by painters, the latter being serviceable especially for latter being serviceance especially oil painting; it forms, moreover, the simplest method of preparing boiled oil is to heat the raw oil in an iron or copper boiler three parts filled. When brought to the boil, it must be allowed to boil for two hours longer, all scum and froth being removed. L. O. forms the basis of all printing and lithographic inks.

Lint, a material consisting of the fibres of the inner bark of the flax plant, and is used for manufacturing the stoutest fabrics as well as the finest cambrics. It is also a special dressing for wounds, consisting of soft fluffy unravelled linen cloth.

Linthwaite, a tn. in the W. Riding of Yorkshire, England, 3½ m. S.W. of Huddersfield. Pop. (1911) 8962. Linton, a tn. in Greene co., Indiana, U.S.A., 12 m. W. of Bloomfield. Pop.

(1910) 5906

Linton, Elizabeth Lynn (1822-98), a She worked for several novelist. years as a journalist, and in 1868 attracted attention by a paper on The Girl of the Period (reprinted) 1883), in which she made a vigorous attack on the manners and habits of the modern young woman. first great success was with Joshua Davidson (1872), and this she followed up with The Autobiography of Christopher Kirkland (1885). Among her other books were: An Octave of Linwood, a tn. in the co. of W. Friends, 1891; George Eliot, 1897; Renfrewshire, Scotland, 21 m. distant and My Lilerary Life (issued posthum-from Paisley. Pop. (1911) 1200.

Linton, Sir James Dromgole (b. 1840). a water-colour and oil painter, was elected a member of the Institute of Water-Colours in 1867. He was elected president of the same institute renamed Royal Institute of Painters in Water-Colours in 1884, and was knighted in 1885. He chiefly excelled in his representation of single figures. but his greatest achievement in oils was his 'Marriage of the Duke of Albany,' a royal commission pro-cured for him in 1885. Linton, William James (1812-98), an

English wood-engraver, born in London. After some years' experience as journeyman engraver, he entered into partnership with John Orrin Smith in the production of The Illustrated London News. He became acquainted with Mazzini, the Italian revolutionary, whose ideals and theories he eagerly embraced. started a political journal, The English Republic, which proved a dead loss financially, and he was compelled to try his fortunes abroad. He set up a printing press in America, and wrote many valuable treatises on wood engraving and literary subjects generally.

Lintot, Barnaby Bernard (1675-1736) a 17th century publisher who figured as one of the victims in Pope's attacks in the Dunciad and Prologue to the Satires. He also published works of

Steele and Gay.

Linum, or Flax, a genus of hardy annuals and perennials of the order Linaceæ. The toughness of the fibre contained in their slender stems and the oil derived from the seeds make the genus of great economic importance. The Common Flax (L. usitatassimum) is not indigenous to Britain, but three species are true natives. L. catharticum is a small plant common on dry pastures bearing cymes of small white flowers. L. perenne is occasionally found in chalky places. Its petals are a beautiful but fugacious sky-blue. L. augustifolium has lliac flowers. The perennials are good rockery plants. L. grandiflorum and its varieties are rose and scarlet. arborcum, of shrubby habits, is yellow.

Linus, formerly a heroic figure in Greek legends, now typifies a dirge or lamentation. Homer mentions the L. song, and the word is conjectured by most authorities to be derived from the Semitic ai-lanu, 'woe to us.' The ordinary legend treats L. as a youth who has either succumbed to the fury of some god or goddess, or has been subjected to a violent death.

Linz, or Lintz, the cap. of the crown- to be seen in the different European land of Upper Austria, on the Danube, and connected with its commercial suburb, Urfahr, by an iron bridge, It possesses two cathedrals, and a bishopric was instituted in 1784. The chief manufs. are carpets and cloths.

Pop. 67,859. Lion (Felis leo), one of the largest and most handsome of living carni-At one time it undoubtedly lived in Europe, but now it is confined to the less civilised parts of Africa and S.W. Asia. Though a single species, a number of varieties with more or less well-marked distinctions have been identified. The I. of Barbary extends over the whole of Northern Africa, and has a deep yellowish brown fur. Its mane is more magnificent than in the other varieties, covering the neck and shoulders and reaching to the under parts. The L. of Senegal occurs further S.W., and is lighter in colour. A third variety ranges throughout S. Africa. Its chief distinction is a darker mane. The Persian or Arabian L. is smaller than any of the Africans, and is paler. The 'maneless' L. of Western India is not altogether without a mane, and a specimen in the London Zoological Gardens developed a fine one. most members of the cat family, the L's true size is a good deal less than L.'s true size is a good deal less than might be supposed. The L. hunts entirely by night, his favourite prey being such Ungulates as antelopes, zebras, cattle, and pigs. A taste for human flesh is usually a sign of old age, when the teeth are worn and hunger makes the animal less shy. The lioness goes with young fifteen or eisteen weeks and produces from two sixteen weeks, and produces from two to six blind cubs at a litter. Mating appears to be for life, from one to four females forming the harem, and the cubs remain with their parents for about three years. The L.'s roar, which usually denotes satisfaction, is one of the grandest sounds in nature.

Lion of Lucerne, see LUCERNE. Lion of St. Mark, see VENICE. Lions, Gulf of the, a broad bay of the Mediterranean, washing the shores of S. France, and called by this name because of the roughness of the sea. The rivers Rhône, Orb, Aude, and Tet discharge their waters into this bay, and the shore is indented for some distance by many miniature bays. The chief town is Marseilles.

Liotard, Jean Etienne (1702-89), a Swiss painter who was equally renowned for his portraits, enamels, and pastel drawings. After studying under Professor Gardille, he visited Paris, Naples, and Rome, where he received a commission to paint the portraits of the pope and various contraits. cardinals. Many of his paintings are and

galleries. Lipa, a tn. in the island of Luzon, Philippine Is., situated in a very

fertile district. Pop. 40,000. Lipari Islands (ancient Æoliæ Insulæ), a group of volcanic islands in the Mediterranean off the N.E. of Sicily. They are seven in number: Lipari, Vulcano, Stromboll, Salina, Panarla, Filicudi, and Alicudi, and are all mountainous, the climate being healthy and the soil very fertile. Lipari is the largest, and produces, quantities of grapes, figs, olives, and corn, while pumice-stone, sulphur, nitre, soda, capers, and fish are also exported. Its capital, Lipari (pop. 12,000), on the E. side, has an active trade, and is the seat of a bishop. Salina is the most fertile of the group, and produces good Malmsey wine. Stromboli and Vulcano have still active volcanoes. The islands were a active volcanoes. The islands were according to the Punic wars, until their capture by the Romans in 252 B.C.; they were afterwards used by the Roman emperors as a place of banishment for political prisoners. Area of group, 45 sq. m. Pop. 21,000.

Liparite, an acidic lava varying in

texture, colour, and composition, so called from its extensive occurrence

in the Lipari Islands,

Lipetsk, a tn. of Russia, situated on the r. b. of the R. Voronezh in the gov. of Tambov. An active trade is carried on in horses and cattle, and there are famous chalybeate springs in the vicinity. Pop. 21,000.

Lipine, a tn. in Prussia, in the prov. of Silesia, and is the centre of a coaling dist. 2 m. N.W. of Königshütte.

Pop. 18,171.

Lipogram (Gr. λείπω, I leave out, γράμμα, a letter) is a species of composition in which the author leaves out one or more letters of the alpha-bet. The Greek poet Lasus wrote lipogrammatic verse, and Tryphio-darus, a writer of the 6th century B.C., compiled an Odyssey in twentyfour books, from each of which he excluded one of the letters of the Greek alphabet. Latin verse was also written in this style, and Rückert wrote German poems excluding the letter r. The French, too, and the Spaniards, have been addicted to this trick; Lope de Vega wrote five novels from each of which one of the vowels to excluded. is excluded.

Lippa, a market tn. in the co. of Temes, Hungary, on the Maros. It has an extensive pottery manufacture.

Pop. 7500.

Lippe, or Lippe-Detmold, a principality of North-West Garmany, which

surface is hilly, and in the S. are the Lippincott's Magazine was founded Lippescher-Wald Mts. The chief in 1868. The chief in 1868. rivers are the Weser and its tribu-The state is noted for its forests, which yield excellent timber, and the rearing of cattle, sheep, swine, and horses (especially the 'Senner' breed). Potatoes, rye, beetroot (for sugar), oats, wheat, and barley are cultivated, and Lemgo is famous for its meershaum pipes, and Salzuffen for its brine springs. The chief towns are Detmold, the seat of government, Lemgo, and Horn. The present constitution of the state dates from 1876, and nearly all power is in the hands of the prince. Area 469 sq. m. Pop. 150,749.

Lippe-Schaumburg, seeSCHAUM-

BURG-LIPPE.

Lippi, Fra Filippino (c. 1457-1504), a natural son of Fra Filippo L., born He studied under Fra at Prato. Diamante, his father's pupil, and in 1480 painted the 'Vision of St. Bernard, an altarpiece in the chapel of the Badia, Florence. Many others followed, and in 1485 he executed the famous 'Madonna and Child between SS. Victor, John the Baptist, Bernard, and Zanobius,' now in the Uffizi Gallery. He afterwards went to Rome and painted frescoes representing scenes from the life of St. Thomas Aquinas for the chapel in Santa Maria sopra Minerva, but returned to Florence in 1493, and painted Christ appearing to the Virgin, 'Christ appearing to the Virgin,' now in Munich Gallery; 'The Adora-tion of the Magi '(Uffizi), and frescoes

tion of the mag; (C. 1...),
for the Strozzi chapel.
Lippi, Fra Filippo (c. 1406-69), an
Italian painter, born at Florence.
About 1431 he began some pictures
for a Florentine monastery, and also
conted other paintings, but his greatest work was the collection of frescoes in the choir of Prato Cathedral which represent events in the lives of St. John the Baptist and St. Stephen. These exhibit fine painting of costume, and are also remarkable for their colour and grouping; the Evangelical Protestant Missionary two best perhaps being the last, the Union, and the Evangelical Alliance, Death of St. Stephen, in which he and took an active part in their introduced the portrait of 1 and took an active part in their writings deal and that of Salome dancing spent his last years in Spolet Among them ing on some frescoes, scenes fi life of the Virgin, for the choi These were finished by cathedral.

Lippincott, Joshua Ballinger (1813-86), a publisher, born in Juliustown, New Jersey, He was a bookseller in Philadelphia, 1831-36, and founded in 1836 the house of J. B. Lippincott & Co., which by 1850 was at the head of the book trade in Philadelphia. After his death (1886) the firm was converted into a company.

Fra Diamante.

Lippmann, Gabriel (b.1845), a French scientist, born at Hallerich, Luxemhourg. He invented the capillary electrometer, and also made other important discoveries, among which may be mentioned the discovery of colour photography. In 1883 he succeeded Briot in the chair of mathematical physics at the Sorbonne, and in 1886 was made professor of experi-mental physics, the same year being elected a member of L'Açadémie des Sciences. He is now president of the Scientific Mathematical Section of the Ecole Pratique des Hautes Etudes, Sorbonne. He has published Thermodynamics; Acoustics and Optics; Capillarity; Colour Photerraphy; Capillarity : C Electrical Units.

Lippspringe, a tn. in the prov. of Westphalia, Prussia, renowned for its saline springs, the Arminius Quelle and the Liborius Quelle. The place is annually thronged by visitors. Pop.

Lippstadt, a tn. in the prov. of Westphalia, Prussia, on the R. Lippe.

Westphalla, Prussia, on the R. Lippe.
The architecture of its principal
church, St. Mary's, belongs to the
Transitional period. Pop. 16,395.
Lipsius, Justus, or Joest Lips (15471606), a classical scholar, born near
Brussels. He was for a time a
teacher in the University of Jena, and in 1579 was professor of history at Leyden, finally settling at Louvain as professor of Latin in the Collegium Buslidianum. He was successively a Roman Catholic, a Lutheran, Calvinist, and again a Roman Catholic. His greatest work was his Tagitus, which first appeared in 1575 and was five times revised corrected.

Lipsius, Richard Adelbert (1830-92), German theologian, born at Gera. He studied at Leipzig, and was professorat Viennain 1861, at Kielin 1865, and at Jena in 1871. He was largely responsible for the foundation of the

Among them Religion, 1885; 871; Lehrbuch

der Evangelisch-protestantischen Dogmatik, 1876; and Die apokryphen Apostelgeschichten, 1883-87. He also assisted in the editorship of the Jahrbücher für Protest. Theologie, and was editor of the Theol. Jahresbericht, 1885-91.

Lipton, Sir Thomas Johnstone, Bart. (b. 1850), a merchant, born at Glasgow. He emigrated to America at the age of fifteen, and supported himself by working in a grocery store, etc. definite shape, but take the shape of After some years he returned to Scot- the vessels in which they are placed. land and started a provision shop at Glasgow. His business gradually increased, and he was not only able to open shops all over the kingdom, but to purchase tea and coffee plantations in Ceylon. He also provided his own fruit farms, bakeries, and bacon-cur-ing establishments in England, as well as a packing-house for hogs in Chicago. In 1898 his business was converted into a limited company, of which he is chairman. He has several times competed for the America Cup, and owns the yachts Erin and Shamrock. He was knighted in 1898, and made a baronet in 1902.

Liquation, the process of transforming a solid into a liquid. term is used particularly of the melting of metallic mixtures in order to separate out their constituents. The process is an important one in the refining of certain metals, as impurities can thus be efficiently and economically removed. In the purification of lead, for example, the metal is melted down slowly in a reverberatory furnace, and the soun formed by the oxidation of impurities is removed as it forms. This is continued until pure litharge is formed on the molten surface, by which time all the tin, arsenic, and antimony have been removed. The operation is also useful in separating the con-stituents of an alloy, as under certain conditions there is a tendency for the metals to separate as they approach their respective melting-points cooling.

Liquefaction of Gases, see GAS AND GASES.

This term is applied to Liqueurs. beverages which have been sweetened and flavoured in such a way as to be highly pulatable. Three ingredients are essential in the preparation of these beverages, viz. (1) a powerful spirit or alcohol, (2) sugar or syrup, (3) some flavouring matter such as anisced, coriander, lemon, cloves, citron, peppermint, etc. Kümmel is the popular L. of Russia, and is flavoured with cumin and caraway Noyau, or Crême de Noyau, is a French cordial flavoured with bruised bitter almonds. Kirschwasser is a favourite L. in Germany, whilst peppermint is much patronised among certain classes in England.

Liquid, a said three will cape the of flavor a but when a product income a congressible. All reflecting to the first place be divided into two classes, solids and fluids. Solids are characterised by having a certain definite shape, which can only be altered by appreciable force being applied.

Again, in order to separate the par-ticles of a solid, as in cutting, a certain amount of pressure is required, the pressure differing according to the nature of the material. It, on the other hand, a plane surface be passed, in the direction of the plane, through a fluid, the resistance experienced is very small. The particles of a solid therefore are seen to have cohesion. and its structure a certain measure of rigidity. The molecules of a fluid appear to possess freedom of move-ment, and the slightest force is suffi-cient to cause change of the relative position of molecules. Fluids may be subdivided as Ls. and gases. If a L., such as water, be poured into a vessel, it will occupy a certain portion of the vessel and no more, but if a gas, such as oxygen, be introduced into a vessel, it will fill the vessel, and howevergreat the capacity of the vessel into which it is placed, some of the gas will be found in every part of it. Ls. have, therefore, a definite volume, while gases have not. The characteristic properties of a theoretically perfect L. may now be summarised. It can be made to flow in any direction in be made to flow in any direction in which force is exerted. Under the influence of gravity, it flows towards the centre of the earth unless prevented or diverted by some impervious substance, and when it has ceased flowing it has a definite surface in the horizontal plane, although large surfaces like those of the oceans must of necessity be spherical. Owing to the free mobility of the molecules, pressure applied at any point is distributed in all directions. If a body of lesser specific gravity be placed in it, its weight causes the displacement of a quantity of the fluid. As the weight of the body is less, bulk for bulk, than the L., the displacement of L. ceases before the body is totally immersed, and flotation takes place. The L. does not appreciably change in volume when subjected to forces of compression or when pressure is reduced. It is practically homogeneous if it has not been subjected to change of con-When heated ditions for some time. it expands as the temperature is raised, but owing to the mobility of the molecules, convection currents are set up if the source of heat is below the L., so that the heat is rapidly carried to all parts of the substance, thus tending to preserve its homo-geneity. No such body as a perfect L. exists, and the distinctions between Ls. and solids, and between Ls. and gases are of a practical nature, and do not exist absolutely. No L. flows with appreciable force being applied, perfect freedom; it possesses a certain Fluids, on the other hand, have no degree of viscosity, that is, difficulty

Liquidation to one another. On the other hand, there is no reason for believing that the molecules of solids remain in the same relative positions when subjected to small forces. Generally speaking, the effect of gravitation on a Generally mass of L. is to tend to flatten it if it is without lateral support, unless the motion of the molecules is so slow that chemical changes at the surface set up other stresses. When a solid body is heated to its melting point, the temperature does not rise above that point until the body has become L., but this process is a gradual one. In the case of bad conductors of heat, the solid melts in parts; in the case of good conductors the whole body gradually becomes more plastic until a certain degree of fluidity is attained. If a L. is heated to its boiling point, the temperature does not rise above that point under ordinary conditions of pressure until the L. has been converted into a gas. If the source of heat is below the L., gaseous portions from the bottom rise and through the surface, so that a definite surface is maintained between the substance as L. and the substance as gas. The boiling-point depends, however, upon pressure, and it has been found that if a L. is heated under cir-cumstances which do not admit of the expansion of the vapour, so much pressure is exerted by the vapour that the rise in temperature proceeds far beyond the ordinary boiling-point, although part of the substance is still At a certain temperature, which varies for different substances, the free surface between L. and gas disappears, and a zone of a nebulous nature appears, which gradually spreads upwards and downwards until the whole becomes homogeneous. This condition is called the critical state, and is apparently analogous to the condition between solid and L., which may be called either plasticity of the solid or viscosity of the L. The solid, L., and gaseous conditions may, therefore, be looked upon as three states in which all substances may exist under differing conditions, and which have widely different characteristics, although under certain co-ditions those characteristics may become modified in the direction of each other. Properties of Ls. derived from the mobility of their molecules are discussed in a theoretical manner in the science of Hydromechanics, divisible into Hydrostatics and Hydromechanics while the mean reaction.

Liquidation, see COMPANY. Liquorice, a substance which is ex-

Hydraulics.

tracted from the roots of Glycyrrhiza Jeremy Taylor in the Christ Church

dynamics, while the more practical aspects form the subject matter of

of movement of the particles relative glabra, a herbaceous perennial plant to one another. On the other hand, found in Southern Europe. It has pinnate leaves, bluish flowers, and a tap root. This latter, which is about an inch in diameter, is sliced and boiled, and an extract known as Spanish juice 'is obtained by evapo-As this solidifies it is rolled into sticks about 6 or 8 in. long and wrapped in bay leaves. It is sweet to the taste, and is much used as a demulcent in medicine.

Liquor Laws, see LICENCE AND LICENSING LAWS, and LOCAL OPTION. Lira, an Italian silver coin, which

Lira, an Italian silver coin, which corresponds to the franc of the Belgians, Swiss, and French, and is divided into 100 centimes.

Liria, a tn. in the prov. of Valencia, Spain, on the l. b. of the Guadalaviar 15 m. N.W. of Valencia. The principal products are wine and olives. Pop. 9000.

Lividendron see THER TREE.

Lisbon, the cap. of Portugal, on the Tagus, 10 m. from its mouth. It is built on a succession of hills,

Liriodendron, see TULIP TREE.

some of them 300 ft. high, and has a very picturesque appearance. It is divided into four municipal districts: the Alfama, or old town, in the E.; the Cidade Baixa, which extends inland from the naval arsenal and custom house; the Bairro Alto, the high ground W. of Cidade Baixa; and the Alcantara, or westernmost district. The Alfama contains the Castello de Sao Jorge, a Moorish citadel, the Sé Patriarchal, a cathedral founded in 1150, said to

have been a Moorish mosque; the 12th century church of Sao Vicente de Fora; and the Church of Nossa Senhora da Graça (16th century), which contains a wonderful figure of Christ. The modern town dates from the period after the great earthquake in 1755, and has long, straight streets and handsome buildings, including a national museum of art, containing Flemish-Portuguese paintings of the 15th century, and gold and silver works of 15th and 16th centuries, and a public library with about 250,000 volumes and 15,000 MSS. L. is also the seat of an archbishop with the title of patriarch, and of parliament, the Palacio das Cortes, in which the Houses sit, being a 16th century Houses sit, being a 16th century Benedictine convent. Its port is one of the best in the world and is well protected, and there is steam communication with S. America and Africa, as well as with all European ports. Pop. 357,000. Lisburn, a tn. in Ireland, in the co.

of Antrim. There are interesting historical ruins, such as Castle Robin and the Giant's Ring, an old fortification. A monument is raised to Bishop dioceses of Down, Conner, and Dro-more. The chief trade is the linen manuf. Pop. (1911) 12,172.

Some trade in fur. Pop. 17,156.

Lissone, a tn. of Italy in the prov.
of Milan. Pop. 7800.

Liscow, Christian Ludwig (1701-60),

satires, which personalities, ha

to-day. He published Eulogium of Bad Authors, against the school of

Gottsched, and other poems, 1739.
Lisieux, a tn. of France on the
Touques, in the dept. of Calvados, 30 m. from Caen. It presents quite a mediæval appearance with its oldfashioned houses and ancient ruins. Buildings of interest are St. Peter's Church and the episcopal palace. There is an extensive woollen trade. Pop. 16,200.

Liskeard, a tn. and in the co. of Cornwall, S.E. of Bodmin. The country is picturesque

the neighbourhood. L. itself stands on a hill overlooking the R. Looc. Pop. (1911) 12,172. Lisle, Alicia (c. 1614-85), the

Lisle, Alicia (c. 1614-85), the daughter and heiress of Sir White Beckenshaw, and wife of John L., whom she married in 1630. During her husband's lifetime she probably shared his fortunes, but after his death, in 1664, she retired to Moyles Court, and in 1685, at the time of Mommouth's rebellion, sheltered some of his supporters. She was tried before Jeffreys and beheaded Winchester.

L'Isle-Adam. VILLIERS see

L'ISLE ADAM.

Lismore, an island at the mouth of Loch Linnhe, Argylishire, off the W. coast of Scotland. It measures of m. in length, and 17 m. in breadth.
The lower portion of Loch Linnhe is divided by this island into two channels, the Lynn of Morren and the Lynn of Lorne. The island was at one time the scat of the bishops of Argyll, who occupied Achinduin Castle, now a ruin. 2. A tn. in the co. of Rous, New South Wales, Australia, on the R. Richmond. It is a Roman Catholic centre. The district is fertile, and there is a brisk trade in dairy produce and eggs. 3. A tn. of lithgow. From 1818-28 he was a Ireland : W.N.W.

a rocky water.

castle :

Carthagh. Pop. (1911) 1600.

Lissa: 1. The outermost island of the Dalmatian Archipelago.

The Dalmatian Archipelago.

Principal products are wine and sardines. Pop. 10,107. 2. At n. in Posen;

Prussia, 25 m. N.E. of Glogau. The cheff manufs. are cloth, linen shoes, Trailee.

Caon. He with the Liston splint, 'used in the treatment of displication of the thing. He wrote Elements of Surgery, 1831; Practical Elements of Surgery, 1831; Practical Capture of Kerry, on the Feale, 15 m. N.E. of cheff manufs. are cloth, linen shoes, Trailee. Pop. (1911) 4300.

Cathedral, which embraces the three and machinery, and there is also

Liscow, Christian Ludwig (1701-60), German satirical writer, born man economist, born at Reutlingen.
Wittenberg, s a disciple of Adam Smith, but with Hamilton in his stricin his doctrines. His chief work

was Das Nationale System der Poli-tischen Okonomie, 1841. L. strongly advocated the extension of the German railway system, and the establishment of the 'Zollverein' was

largely due to him. Lister, Joseph, Lord (1827-1912), a British surgeon, born at Upton, Essex. From 1860-69 he was pro-fessor of surgery at Glasgow Uni-versity, and from 1869-77 professor

of clinical surgery at Edinburgh Uni-and from 1877-93 at King's London. He was serjeant-to Queen Victoria in 1878,

ated a baronet in 1883, and there are stone and slate quarries in first baron in 1897. He was president the neighbourhood. L. itself stands of the Royal Society from 1895-1900, on a hill overlooking the R. Looc. and president of the British Association in 1896. He is famous for the discovery of the antiseptic system of treatment, which has revolutionised

modern surgery Lister, Joseph Storr, I.S.O. (b. 1852)

Justice of the Peace and Road Magistrate for Cape of Good Hope. He has made a special study forestry, and has been entrusted with many important commissions con-nected wi the investi the Trans of a Fores Zululand

Free State Conservate of S. Africa in 1910.

Liston, John (1776-1846), an actor, born in Soho. He first appeared in the N. of England with Kemble, but afterwards played at the Haymarket (1805), Covent Garden (1808-22), Drury Lane (1823), and the Olympic. Among his rôles may be mentioned those of Polonius, Slender, Diggory, Sir Andrew Aguecheek. I Cloten, and Captain Dalgetty Bottom,

Robert (1794 - 1847), Liston, Robert (1794-1847), a surgeon, born at Ecclesmachan, Linlecturer on s

in 1835 was surgery at don. He wa

at Raiding in Hungary; studied under Czerny and Salieri in Vienna (1821-23), Paer (1823), and Reicha (1826) in Paris. By this time he had won considerable fame as a pianist in Vienna, Paris, and London. During his coicum in Paris in 1820 22 in his sojourn in Paris in 1830-32, he came into touch with the Romantics (Berlioz, Chopin, George Sand, etc.); and two years later he began his liaison with the Countess d'Agoult. The next few years were spent travel-ling in Switzerland and Italy; he has recorded his impressions in the famous Années de Pélerinage (1842). These pieces, the great B-minor Sonata (1853), and the two Concerti are the finest of his innumerable contributions to pianoforte literature, which include transcriptions of songs and of symphonic works, formidable His chief orchestral éludes, etc. connected writings are with his Weimar career (1848-61), e.g. the symphonic poems, the Dante and Faust symphonies, etc. In 1865 he took holy orders, becoming an abbé; and henceforward his works were principally of a sacred character: the Graner (1866) and other masses, Christus (1866), psalms, and the Christus (1866), psalms, and the Requiem for male voices and organ. He also left some very beautiful songs which are unjustly neglected. Arthur Hervey's Franz Liszt (Lane, 1911). Li-tang, a tn. of Sze-chuen, China, on the Tibet route. Litany (Gk. λιτανεία), a form of prayer originally only used in times of distress. It consisted of penitenjung by tial . the cession. The is uncertain; 446 is given for Constantinople, and the time of Justinian for Antioch, and Mamertus of Vienne is said to have composed (c. 450) a L. for use at Ascensiontide in parts of Gaul. But whatever the date was, Ls. were common in the 6th century; the first synod of Orleans (511 A.D.) ena week at Whitsuntide, and another

synod of Paris (573) ordered Ls. to be

recital of Ls. for three days from Dec. 14. The word is first mentioned

connection with

Lent, and the fifth synod of Toledo (636) gave injunctions for the

the

Roman

Liszt, Franz (1811-86), a composer, conductor, and virtuoso pianist, one of the most important figures in the development of modern music, born

Gregory the Great introduced a 'litania septiformis,' or a sevenfold procession of clergy, laymen, virgins, married women, widows, poor, and children. He also probably instituted the processions or Ls. for St. Mark's Day, which the synod of Cloveshoe (747) ordered to be held 'after the manner of the Roman Church.' The L. probably consisted at first of the words, 'Kyrie eleison,' but became gradually enlarged, and later on was addressed to the Holy Trinity, the Blessed Virgin, and Saints, the Blessed Virgin, and Saints, people's response being 'Ora pro nobis,' if it was directed to the Virgin, or a saint, and 'Libera nos,' if addressed to the Deity. The form in the Anglican Prayer-Book contains no invocation of the Virgin or saints, but otherwise is similar to the ancient It is, however, no longer a distinct service (since 1611), but forms part of the Morning Prayer after the third collect for Grace.

Litchfield, a city of Montgomery co., Illinois, U.S.A., 50 m. N.E. of St. Louis. It is an important railway

centre, and coal, fire-clay, and oil are found in the neighbourhood. Pop. (1910) 5971. Litchi, or Leechee, see Nephelium. Literary Forgery, consists in the publication of literature which pur-ports to be what it is not. It has been practised by many writers, and a notable example was the Epistics of Phalaris, a late Greek forgery, proved to be such by Bentley in 1697. Among literary forgers may be mentioned: (1) George Psalmanazar (c. 1679-1763). who invented an elaborate alphabet and grammar and religion of his own, and presented Bishop Compton with the catechism in his invented lan-guage which he styled 'Formosan.' He also published a fabricated Description of Formosa in 1704. (2) James Macpherson (1736-96), who issued two epic poems, Fingal (1762) and Temora (1700). be translated f. called Ossian. ton (1752-70), who began to fabricate Rowley's verses (1765), Thomas were common in the oth century; the Triomas Rowley's verses (1765), first synod of Orleans (511 A.D.) en- which were published as genuine joined their use for three days before 15th-century poems in 1777 and 1782. Ascension all over Gaul, while the (4) Bodmann (1754-1820) professor synod of Gerunda (517) provided for and librarian at Mainz, who forged two sets of Ls., one to be observed for two, at least, of Johann Gutenberg's a resolved twith the property and another property and a which the property and a property at the property and a pr works, one of which he purported to be an autograph letter of Gutenberg at the Feast of All Saints. Again, a to a fictitious sister of his named Bertha. (5) William Henry Ireland (1777-1835), who forged deeds and signatures of, or relating to, Shakesaid for three days at the beginning speare (1794), made a transcript of Lear and extracts from Hamlet, in feigned handwriting, deceiving even Church in 555, but Ls. were probably such experts as Joseph Warton and in use long before that time. In 590, George Chalmers, and fabricated

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John Payne Collier (1789-1883), who forged marginal corrections in the Egerton folio of Shakespeare before 1841, and in the Perkins' folio before 1852, and brought out editions of Shakespeare based on these forgeries. (7) Richard Pigott (c. 1828-89), who wrote articles entitled 'Parnellism and Crime,' in *The Times* newspaper, in which he libelled the Home Rule party, and also published letters purporting to have been signed by Parnell which condoned the Phænix Park murders.

Literary Fund, Royal, was founded in 1790 by David Williams, and has for its object the assistance of necessitous authors, their widows and and spodumene. orphans, or mothers or sisters. fund has an income of about £4000, orphans, or mothers or sisters.

(PbO). It is obtained by oxidising lead at high temperature, two forms of the monoxide being known; one form, called massicot, is obtained at moderately high temperatures, while the second form, or L., is obtained in the process of cupellation. In this process lead which is known to contain silver is heated in a furnace made of bone ash mixed with pearl ash, and subjected to an oxidising atmosphere. The lead is oxidised to L., which is blown off by a special blast, or is absorbed by the bed of the furnace. leaving the molten silver behind. is a yellowish powder, and is used in the manufacture of flint glass, and of glazed earthenware, and in the preparation of quick-drying oils and varnishes. It is the source of the preparation of lead nitrate and the basic acetate used for pharmaceutical | purposes.

Litherland, a par. and market tn. of Lancashire, England, 5 m. N. of Liverpool, of which it is a suburb; has manufs. of matches. Pop. (1911) 14.796.

New South Wales, 70 m. W.N.W. of Sydney, in a valley of the Blue Mts. There are potteries, broweries, iron works, saw mills, and brickfields. Pop. (1910) 8260.

Lithgow, William (1582-1650?), a Scottish traveller and writer, born in

tures, including his narrow escape from the Inquisition at Malaga from the Inquisition at Malaga through the intervention of the English Consul (1621), will be found in his The Totall Discourse of the Rare Ad- black added.

pseudo-Shakespearian plays, Voltiventures and Painfull Perceptinations gern and Rowena, and Henry II. (6) of long Nineleene Yeares Trawayles of long Nineleene Yeares Trawayles (London), 1632 (new ed. 1906). Other writings of his are: A True and Experimentall Discourse upon the last siege of Breda, 1637; an account of the siege of Newcastle and battle of Marston Moor (1645), and six poems (1618-40).

Lithic Acid, see URIC ACID. Lithium, a metallic element of the alkali group, formula Li, atomic weight 7. It is a rare metal, but is widely distributed in small quantities in sea and river water, in plants and less widely distributed in larger quantities in the mineral silicates petalite (3 per cent.), lepidolite, or lithia mica (5 per cent.), triphyline, and and spodumene. It is prepared by The electrolysis of the fused chloride ob-L. is a silvery-

uts easily and is extremely '59), and has a (180° C.) than The carbonsed in medicine

in cases of gout and gravel. Lithography (Gk. λίθος, a stone, and γραφείν, to write), the process of drawing upon and printing from stone. The principles upon which the process is based are the antagonism of grease and water, the disposition of greasy substances to adhere to one another, and the property of absorption possessed by calcareous stones. A chemically pure surface is covered in the portions it is intended to print, with a greasy composition (i.e. has a drawing, etc., made on it), and the rest of the surface is moistened, so that the application of a greasy roller causes the resistance of the wet portion, but not of the greasy part, and an impression can readily be taken from the surface when treated in this manner. The best stone for lithographic purposes are those first used by the inventor of the process, Senefelder (see below), which are found in the district between Bannaham and the district between Pappenheim and Killheim in Bavaria. It is a species of slaty limestone of a nondescript The thickness required yellow hue. for printing is from 11 to 4 in., according to the size of stone required. Before being rendy for use, the stones are shaped, levelled, ground, and polished, and, if necessary, grained. Langew, with an (1952-1950), a poissed, and, if necessary, grained. Scottish traveller and writer, born in Lithographic ink is made from wax, Lanark. He left Scotland about 1610 white soap, tallow, shellae, mastic, and for nineteen years travelled in and lamp-black; chalks, or crayons Europe, the Levaut, Egypt, and N. (so called merely because their appearance of the necessary grained.

The ingredients are

cool, after which they are cut into the required sizes. Crayons are used on grained stone, and ink on polished stone. Much of the work is now done on transfer paper, thus obviating the necessity of the work being executed in the reverse way. There is not sufficient space within the limits of this article for any detailed description of the various processes of lithographing, but a brief resume may be given. Drawing on smooth stone is carried out with steel pens and sable hair brushes; the design is drawn on the stone in reverse, after which it is etched with dilute nitric acid before being printed, or with acid and a solution of gum Chalk drawing on grained arabic. stone is a very delicate operation, as the tones have to be equalised, and the gradations of colour perfected, by repeated touches and by picking with needles. Engraving on stone. The stone, after being prepared with a solution of acid and gum is washed, dried, and rubbed with a red or black powder. The lines of the drawing are scratched through this into the stone, spread with linseed oil, and charged with printing ink before the impressions are taken. Etching on stone is similar to ciching on copper, and the stone is prepared in the same way; the biting-in effect is obtained by dilute acetic acid, and the lines filled in with printing ink. It is in this department, especially, that the use of prepared paper has superseded drawing direct on to the stone. (For chromo lithography and tinting, the former process being a series of printings from separate stones, and the latter including all colour-printing in flat or uniform single colours, see articles on Printing, and also on PHOTOGRAPHY.) Steam power began to supersede manual labour in the lithographic press about 1850. (See PRESS and PRINTING for a descrip-tion of the machinery.) L. was in-vented by Alois Senefelder (1771-(See 1831), and it is remarkable what a firm grasp of its principles he manifested from the beginning. See his Complete Course of Lithography, 1819; see also W. D. Richmond, Grammar of Lithography; D. Cumming, Handbook of Lithography, etc. See also articles on Etching, Engraving, etc. Lithology, see PETROLOGY.

Lithomarge, a variety of clay consisting of a combination of silica alumina and oxide of iron. It is usually white or grey in colour, soft, greasy, and easily sextile in character,

subjected to the action of heat until $\phi \alpha \gamma \delta v$, to eat), a family name for-fused and then poured on a slab to merly applied to some bivalve molluses, but its component species are now divided among other families, and the term is no longer used. The significance of the name is that the animals burrow in rocks and other hard objects.

Lithotomy, a cutting operation for removal of stone from the bladder. Formerly, the incision was made from the perineum, but this method is now superseded by the supra-pubic opera-tion. The patient is placed upon his back and a hot boracic lotion is injected into the bladder, so that it rises above the region of the pubes, and the lotion is retained by plugging the end of the catheter. The incision is then made in the abdomen low enough to avoid the peritoneum, and the bladder wall opened. As the contained lotion rushes out, the bladder wall is temporarily sutured to the surrounding muscular fibres, so that the opening is kept above the pelvis when the lotion is discharged. An examination of the size and position of the calculus is made with the fingers, and the removal is effected with forceps. The operation is now in many cases superseded by lithotrity (q.v.), except in young boys, where the danger from L. is comparatively small.

Lithotriptics, the branch of surgical science dealing with the removal of calculi or stones from the bladder. See LITHOTRITY.

Lithotrity, an operation for the re-Lithotrity, an operation for the removal of stones from the bladder by crushing. The method is now often called litholapaxy, to distinguish it from the older method, which was performed in two or more sittings. The modern operation is performed by means of a special instrument called a lithotrite consisting of two called a lithotrite, consisting of two blades which may be brought together by means of a screw. This is introduced into the bladder by way of the urethra, the stones are grasped one by one and crushed between the blades, care being taken not to nip the wall of the bladder. The crushed material is then withdrawn from the bladder by means of an 'aspirator,' a rubber ball filled with boracic lotion which discharges lotion into the bladder on being squeezed and withdraws it on being relaxed. A special trap is provided to catch the crushed stones as they are withdrawn.

Lithuania, a dist. in the N.W. of Russia in Europe, lying between 50° 30′ and 57° 45′ N. and between 20° 50′ and 28° 20′ E. It was formerly independent, but finally united to Poland in 1569. At the time of its orrestest, power. and abounds in the tin mines of Corn-wall, in Germany, and America.

Lithophagidæ (Gk. λίθος, stone; ism to Christianity in 1397, L. ex-

Moscow and southward to the Black (1911) 11,705. The Lithuanians were pagans up till 1397, but since the union with Poland, Roman Catholicism has been the prevalent form of religion. The country is cold, flat, and unproductive, being largely covered with forests and marshes; corn, flax, rye, and hemp were produced however. From the date of its union with Poland, the history of the two is the same (see Portun). Poland, the history of the two is the same (see Poland). At the fall of the kingdom of Poland, Russia took the provinces of Moghilev, Polotsk, Vilna, Troki, Novgorod-Syeversk, Brest, and Vitobsk, and constituted them 'the Lithuanian government'; the name of Lithuanian provinces is, however, generally used only for Vilna and Kovno, which are described as such even in official documents in suite of the czar's prohibiments in spite of the czar's prohibition of the name in 1810. From the 10th century the Lithuanian peoples have been divided into the three branches of Prussians, Letts, or Latvis, and Lithuanians proper. The Prussians are mostly confined to the Baltic coast chiefly to the E. of the Vistula; they have been largely absorbed by Germanic peoples. The Letts occupy a part of the Courland peninsula of Livonia and Vitebsk. The Lithuanians proper mingled very closely with the Poles and at the closely with the Poles, and at the fall of Poland fell to a great extent into the position of series Russian landowners. Th tongue is closely akin to

and is far the most archaic of spoken Aryan languages.

Litin, or Litinsk, a tn. of S.W. Russia, gov. of Podolia, cap. of the dist., and 75 m. N.E. of Kamenets-Podolsk on the Zgar. Pop. 10,000.

Litmus, a colouring matter, manufactured in Holland from the lichen (Lecanora tartarea), and in S. Africa and Chile from Rocella tinctoria. It is prepared by fermenting the matter obtained from the lichen with potassium carbonate. It is sold in small blue tablets, which more often Journ consist of calcium carbonate and 1909. sulphate than the proper pigment. It is largely used by chemists in testing, being turned blue by alkalis and red by acids.

tended to the E. almost as far as stone-quarries in the vicinity. Pop.

Little Colorado, a riv. in the S.W. of the U.S.A., rising in the W. of New Mexico and flowing W. and N.W. to join the Colorado R. (a total length of 277 m.) at the southern end of the Marble Canyon. Its course lies over a barren plateau, in which, for the last 27 m. of its course, it cuts a rayine 1800 ft. deep.

Little Egypt, the country from which the wandering tribes of the Gypsies asserted that they had been driven by the Turks when they first appeared in Europe in the 14th century. According to the listorian Albert Krantz, there first appeared in Germany in 1417 an uncouth, black, dirty, barbarous appeared in Germany in 1417 an uncouth, black, dirty, barbarous people, called by the Italians 'Ciani,' who alleged that they came from 'Litell Egypt' and were on their way to Rome on a pilgrimage of expiation for some sin of which the accounts differ. By 1500 they had reached England, for in 1505 reached England, for in 1505
James IV. of Scotland gave to
'Antonius Gagine, Count of Little
Egypt,' letters of recommendation
to the King of Denmark. Where they
originally came from is still uncertain, Grellmann (1733) asserts that their speech is closely allied to some Indian tongue, and that they came from India, and various writers have upheld the theory that they are escendants of the ancient

driven out of Egypt by ens. The most generally accepted site of 'Litell Egypt,' how-ever, is in the Peloponnesus, pro-bably in Epirus. Mazaris, a Byzantine author, writing about 1416, mentions the 'Egyptians' as living in the Peloponnesus, and their own earliest story, that they had been driven out of 'Litell Egypt' by the Turks, is supported by the adoption of the Turkish in 1652 of the

and Lesser Eg. Dissertation (Eng. trans.), 1787; also Journal Gypsy Lore Society, April

Little Farther'er, a Lickname given by their initial or ponents, the linear initial or ponents, the linear initial or ponents, the believe, are opposed to the extension of the British empire, or even its maintenance in its present condition.

by acids.

Litre, or Liter (Fr. litre from Gk. litre, or Liter (Fr. litre from Gk. litre, or Liter), a measure of capacity in the metric system of France, being a cubic decimeter, and equal to 61°022 of Morrison co., Minnesota, U.S.A., cubic in. or 1°76 English pints. It is used both as a dry and liquid measure.

Littleborough, a tn. in Lancashire, Littleborough, a tn. in Lancashire, Co., New York, U.S.A., on the Moengland, 3 m. N.E. of Rochdale. It hawk R., 21 m. E.S.E. of Utica, has manufs. of woollen goods and Manufs. include bicycles, cotton, cotton goods, chiefly calico, and yarns, hosiery and knitted goods, there are collicries, iron mines, and

Little Fish Bay, see Mossamedes. Littleham, a vil. and par. in Devon-shire, England. 2 m. E. of Exmouth.

Pop. (1911) 5800.

Littlehampton, a par., seaport, and watering-place, Sussex, England, at the mouth of the Arun R., 10 m. E.S.E. of Chichester. It has a safe harbour and is the trading port of Arundel. Its fine beach and golf links make it a favourite health resort. Pop. (1911) 8,351.

Little Java (Malay Archipelago),

see Bali.

Little John, see ROBIN HOOD. Little Missouri, a trib. of the Missouri R., U.S.A., rises in Crook co. in the N.E. of Wyoming, and flowing in a N. and N.E. direction through S.E. Montana, N.W. of S. Dakota, and N.E. of N. Dakota, to join the Mis-souri. Length 450 m.

Littlemore, a vil. of Oxfordshire,

21 m. S.E. of Oxford.

Little Popo, a dist. and tn. of Togoland, German W. Africa. Chief tn.,

Anecho.

Little Rock, a city and cap. of Arkansas, U.S.A., and co. seat of Pula:

m. It is

the most populous and important commercial and manufacturing city of the state. The chief industries are cotton and lumber works, cotton-seed oil and cake, foundries and machine shops. Pop. (1910) 45,941.

Little Russia, a part of S.W. Russia, imprising the govs. of Kharcomprising the govs. of Khar-kov, Kiev, Poltava, and Tchernigov. The Little Russian language closely resembles the Ruthenian of Poland Area 80,214 sq. m. and Hungary.

Pop. 14,058,000.

Little Sioux River, Iowa, U.S.A., rises in the N. of the state and flows S. to join the Missouri about 16 m. S. of Onawa city. Length 300 m.

Littlestone - on - Sea (Kent).

ROMNEY, NEW. Littleton, Sir Thomas (c. 1407-81), an English judge and legal author. He became a judge on the northern circuit in 1455 and judge of the court of common pleas in 1466. His Treatise on Tenures was probably written after his last appointment, but was not published until after his death. It was addressed to his second son and was written in 'law French.' Its first edition (probably 1481) was one of the earliest printed books, and it has since been repeatedly edited and annotated, notably by Sir Edward

Litton, Marie (née Lowe) (1847-84), an actress, made her first appearance on the stage in 1868 as Effic Deans in

: Midlothian. After acquiring further experience, she in 1871 became manager of the Court Theatre for three years, and from 1878 of the Imperial Theatre. Her personal successes were in old comedy, and she won much praise in such parts as Rosalind, Lady Teazle, Lydia Lan-guish, and Miss Hardcastle.

Littonia, a genus of liliaceous plants contains only two species. Both of these are natives of S. Africa and L. modesta is found in Natal. In habit

they are like Gloriosa.

Littoral Deposits, the deposits of sands, gravels, muds in the comparatively shallow water on the seashore, especially the zone between the high-water and low-water mark. On the seaward side they merge gradually into the fine muds and organic oozes

of the deep-water deposits.

Littré, Maximilien Paul Emile (1801-French lexicographer and philosopher, born in Paris. He fought on the Barricades in the revolution of 1830, and obtained an introduction to Carrel, the editor of the National. In 1835-36 he became a regular contributor to both the National and Revue des Deux Mondes. In 1839 appeared the first volume of his translation of Hippocrates, completed in 1862. At this time he made the acadopted the

of his friend, olication de la Gouvernement Révolution, roles de Philoand Auguste Positive (1863).

His translations include Pliny's Natural History (1848-50) and Strauss's Fie de Jésus (1839-40). He was also on the committee for the preparation of Histoire Littéraire de la France. His great Dictionnaire de la Langue Francaise appeared 1863-72, and Histoire de la Langue Française in 1862. In 1871 he was elected a member of the Sainte-See

ittré, 1863; M. Nouvelle Re-Caro, Littré et

> m its a serto the aerally

translated by 'ministry,' as, for example, in Rom. xv. 16, where the word translated 'minister' is λειτουργον. The word λειτουργία was early appropriated by Christians to designate Coke. See also Paston Letters, edited the ceremonies of the Church, and by Gairdner, 1872.

Intermediate Lowel (1847-84)

Boucicault's version of The Heart of tirely out of popular usage, Here the

frequently used in liturgical treatises. It is possible that traces of a L., in the sense of a set form of cucharistic offering, is to be found in the books of the N.T., and, indeed, the very circumstances of the institution of the sacred rite demand the tradition both of the manual acts and of a general order. Many liturgical authorities have held it probable that some of the references to the celebration of the Lord's Supper in the Pauline writings are quotations from some L. During the first centuries the sacred rites were celebrated with the greatest secreey, and references to the manner of their celebration are therefore rare. A somewhat confused out-line is given by Justin Martyr in his Defence of Christianity, but a clearer Defence of Caristianity, but a clearer idea of the form of the rite is given in the eighth book of the Apostolic Constitutions (q.v.). It bears a much closer affinity to the Eastern rites than to the later Western ones. Unfortunately, the early history of the great Western L., that of St. Peter, is extremely obscure. It can be studied only in the present Homan rite and in the Ambrosian rite still used in the diocess of Milan. The Roman Ls. are distinguished by the position of part of the great inter-cession being between the Sanctus and Consecration; also by the position of the Pax after the Consecration. Varieties of the Roman use, differing but slightly from the modern Roman, are to be seen in the various local uses ıglish on esent local Ar rites had probably some further con-

nection with the extinct Gallican rite, of which several books remain. With the Mozarabic L., which in a debased form still survives in parts of the Spanish city of Toledo, it belonged to the Ephesian group of Ls. Liturgical research has made great strides of recent years, and a large amount of literature is available on the without literature is available on the subject. For the Ls. themselves, see Brighman's Liturgies Eastern and Western, mun's Laurgies Eastern and Western, 1896; also Warren's Liturgi of the Ante-Nicene Church, 1897; Duchesne's Origines de Culle Chrétien (Eng. trans. of 3rd ed.), 1904; and a series of Christian Ls. published by Cope and Fenwick, 1908, etc.

Liu-Kiu, see Loo Choo.

Liu-Kiun, or Lambau, an island etc.

holy sacrifice is commonly termed the embassy to Constantinople in 949. Mass, though the ancient title is Falling into disgrace with Berengar, he joined Otto I. of Germany, and accompanied him in his invasion of Italy. He was frequently employed in embassies, and his description of the one to Constantinople in 968, De Legatione Constantinopolitand, is one of the best satires of the 10th century. His Antapodosis, a history of the period from 887-949, was designed as a revenge upon Berengar. His Historia Ottonis, 960-964, is of considerable historical value. All are to be found in Monumenta Germania See Köpke's Historica. DcLiudprandi, 1842 Liudprando, 1889. 1842, and Baldeschi's

Livadia (ancient Lebadeia), a tn. in the nomarchy of Attica and Boetia, Greece, on Lamos, near Lake Copais, 52 m. N.W. of Athens. Lebadeia was famous for its subterranean oracle of Trophonios. The modern town manufactures cotton goods, and has a trade in rice, grain, and oil. Pop. 6500.

Livadia, a township on the S. coast of the Crimea, S. Russia, 3 m. S.W. of Yalta. It has an imperial palace, a favourite resort of the Czar, Alexander II.

Liveing, George Downing (b. 1827), an English chemist and spectroscopist, born at Nayland, Suffolk. was appointed lecturer on natural science at St. John's College, Cambridge in 1853; professor of chemistry at the Royal Military College, Sandhurst, in 1860; and professor of chemistry, Cambridge, from 1861-

1885-88, in conjunction with Pro-fessor Dewar; and, with Mr. Warren, Report on the University Colleges,

1897, besides many papers on spec-troscopy, crystallisation, etc. Liver, the largest gland in the body.

ht-hand side of . immediately and in front of stomach.

anterior surface is convex, and lies close to the wall of the abdomen. Its posterior surface is slightly concave, and accommodates itself to the shape of the organs with which it is in contact. On the right the upper and posterior surface is in contact with the diaphragm, below this is a deep depression fitting the surface of the Liu-King, or Lambay, an island of China, off the S.W. coast of Formosa, 18 m. S.E. of Takow. It is noted for fine marine shell-fish. Pop. 4000.

Liutprand, or Liudprand (c. 922-972), an Italian chronicler and Bishop of Cremona. He became chancellor of King Berengar, and was sent on an example of the greatest thickness

is on the right side, and from there | function of the L. is the regulation of the L. tapers down in front and below to a sharp edge. The colour of the L. is reddish brown, and its weight is in the neighbourhood of 3 or 4 lbs. The L. consists of five lobes: the right, the left, the lobus spigelli, the lobus quadratus, and the lobus caudatus. lobes are made up of a large number of lobules, conical in form. Each lobule is covered with connective tissue and contains hepatic cells, capillaries, arteries, veins, lymphatics, and biliary channels. The blood is and biliary channels. brought from the digestive tract, and the spleen to the L. by the portal vein, from which intralobular veins branch out to lead around the lobules, while the cells are fed by intralobular capil-laries from the introlabular veins. The intralobular capillaries are received by a central vein in the core of the lobule, which leads to a sublobular vein, and ultimately into the vena cava. The L. secretes bile, which is conveyed either directly or by way of the gall-bladder to the common bile duct which leads to the second part of the duodenum. The functions of the L., once thought to be simple, are now known to be very complex. Much of its work consists in the secretion of bile. This is a golden-brown liquid secreted by the hepatic cells, and is probably mostly of the nature of an exerction, its functions in the digestive processes having been formerly over-estimated. It contains two pigments, bilirubin and biliver-din, which are produced by the de-composition of hemoglobin. It also contains organic salts, the chief of which are sodium taurocholate and

in the intestines and aid in the absorption of other food material. probably also serve as a natural antiseptic for the intestines. Another important function of the L. is the production and storage of glycogen, or Carbohydrates are animal starch. converted by digestive action in the intestines into the sugar glucose, which is finally used up, particularly in muscular tissues, for the production of muscular energy. The muscles are capable of storing up a certain amount of glucose, but this is not sufficient to keep the body active for any length of time. The L., however, acts as a storehouse for sugar. As digestion proceeds, the glucose is taken up by the L., converted into glycogen and reconverted into glycogen cose gradually, according to the needs of the system. A disturbance of this function of the L. is, therefore, bound to be accompanied by a lack of enduring power in the muscles. Another in the L.: it is a natural consequence

the number of red corpuscles in the The production of hæmoblood. globin, the red colouring-matter of the blood, is ordinarily a function of bone-marrow, but in the feetal stage, there is little doubt that the L. aids in the supply of hemoglobin. excretion of effete and broken down red corpuscles is undoubtedly one of the functions of the L. Whether the destruction of the corpuscles takes place in the L. is not known, but the waste products go to form the pigments of the biliary secretion, and are ments of the oniary secretion, and are thus excreted. Still another function of the L. is the disposal of waste or excessive proteid matter. The pro-teins are broken up in the stomach into peptones; these are converted into amino-acids by the pancreatic juice, and are carried off by the blood stream to build up the tiesure. More stream to build up the tissues. Many of the amino-acids are, however, of little or no nutritive value, and these are converted by the L. into urea, which is then carried to the kidneys. and finally excreted in the urine. With its multiplicity of function, the L. is specially liable to derangement, either temporary or more permanent. Sheer overwork of the L. is undoubt-edly the cause of many bodily air-ments, and the obvious cure is a period of rest. The beneficial effects period of rest. The beneficial energy of a spare and plain diet are due, to a great extent, to a relaxation of the strain upon the L. The accumulated poisons may then be quickly eliminated from the body, and healthy conditions are likely to continue until ents the L.

supply of blood, and the development of new fibrous tissue within the organ. This leads to a condition known as cirrhosis of the L. The organ is at first enlarged, but afterwards becomes enlarged, but afterwards becomes hardened and reduced in size. Cirr-hosis is often the result of spirit drinking, and although it may not be accompanied by painful symptoms, subsequent degeneration of its structure is likely. The blood is not able to pass through quickly enough, and in consequence serum may be exuded from the portal vein into the peritoneal cavity, forming what is known as ascites, or dropsy of the abdomen.

n efficiently ttion of the

Hepatitis, or inflammation of the L., is often the result of infection from some other diseased organ. The symptoms are pain and jaundice. Treatment involves rest, aperients, and fomentations to relieve pain. Jaundice of disease of the symptoms of the symptoms of the symptoms. dice is a symptom consisting of discoloration of the skin and excretions due to the presence of bile-pigments of a derangement of the biliary functions of the L. Yellow atrophy of the L. is a rare disease characterised by slaughtered as soon as possible. intense jaundice, and severe nervous symptoms. The L. is invariably much reduced in size; no treatment is of any Gall-stones are concretions formed in the gall-bladder or bileducts. They give rise to painful symptoms, and may cause an obstruction in the bile-duct, with the possibility of ulceration and perforation of the duct. The stones should be removed

by operation. Liver Fluke, Liver Rot, Distomiasis, Fascioliasis, or Dropsy of the Liver, a parasitic disease most common in sheep, but occurring also in goats, cattle, dogs, horses, and even man. The fluke (Distomum hepaticum) belongs to the order Trematoda, or flat suctorial worms. Its life-history is very remarkable. There are seven stages, six of them lived outside the body of the sheep, that in the sheep being the final or adult stage, where eggs are produced, and are passed through the bile duct into the bowels, and expelled. Provided these eggs fall on damp ground, they hatch into ciliated embryos which must find the small water-snail (Limnaa truncatula) within eight hours. If successful, the embryo bores into the lung of the snall, and changes into a shapeless hag from which many redie are produced by budding. These enter the liver of the snail and feed on it until they turn into tadpole-like cercarie. These leave the snail, swim to a submerged grass plant, lose the tail, and become encysted. If a sheep cats the grass the cyst dissolves in the stomach and the young fluke passes into the liver. As many as 200 have been counted in one liver, and each fluke produces about 40,000 eggs. The disease is commonest after a wet summer on badly drained ground, as there must be standing water during the warmer weather for the eggs to

tralia where the disease is prevalent. Draining the land thoroughly both improves the herbage and prevents the fluke completing its several stages. Dressings of salt or lime destroy the embryos and the cysts when attached

Liver of Sulphur is formed by fusing sulphur with potassium carbonate, the substance being dark brown and unstable. Acids readily decompose it, liberating sulphuretted hydrogen: this occurs when exposed to air, owing to the action of carbonic acid. has led to its being used internally as a medicine, though it is chiefly used externally in ointments for skin affec-

tions. Chemically it consists mainly of sulphides of potassium.

Liverpool, a municipal city, parl. bor., and scaport, in the co. palatine of Lancaster, England. It lies on the slope of the r. b. of the Mersey, the open sea being some 3 m. from the The original centre of the city. The original borough, which was devastated by the plague in the 16th and 17th centuries, has long since disappeared, and the present city, with its fine streets and buildings, is as healthy as good natural drainage and sanitary reforms can make it. L, is to-day one of the largest trading centres in the world. Originally her dealings were mainly with Ireland, but the opening up of trade with the W. Indies and N. America, coupled with the develop-ment of the cotton industry in Lancashire, gave an impetus to her trade, which has continued to increase steadily since the time of the Restoration. Her principal trade now is with N. America, to which no less than six lines of steamers run, besides those to the Canadian ports. The chief import is cotton: grain, provisions, tobacco, sugar, timber, and rum being next in importance. manufactured goods of Lancashire and Yorkshire form the principal exports, but wool and salt are also important exports. As a manufacturing centre L. does not rank high, engineering there are extensive works, sugar refineries, and corn mills. Printing on pottery was invented by a L. merchant, John Sadler, and all the early Wedgwood goods were printed at L. Lever watches were also invented in the city by a manufacturer named Litherland. The great feature of L., and the main source of her prosperity is, of course, the docks, and some idea of

embryos and the cysts when attached to the grass and also the snails. Liver to does not occur on salt marshes. Sait may also be given in 'the increase in her trade may be gained by the following figures: In Sait may also be given in 'the said that it is a pellowish time in the weakness, a pellowish time in the weakness, to £1,291,995. The docks are owned while the name 'pothelied,' or dropsical. A dose of 15 grains of etherial extract of male shield fern for each 11 lbs. of the animal's weight is a remedy for this mile into Bootle. On the other side

acres, and that of the Birkenhead docks, with the great float (120 acres), 165 acres: the lineal quayage on the L. side being 27 m., that of Birkenhead 94 m. The corporation started the enclosed docks system in 1709, Thomas Steers being the engineer, but in 1857 the Mersey Docks and Harbour Board took over the management. This board comprises twenty-eight members, twenty-four of whom are elected by the rate-payers on ships and goods, and four by the Mersey Conservancy Commis-sioners composed of the First Lord of the Admiralty, the Chancellor of the Duchy of Lancaster, and the President of the Board of Trade. It was not until 1843 that the docks were extended to the Cheshire side of the river, and twelve years later before they came into the possession of L. Besides the wet docks, there are three graving docks at Birkenhead, while L. has fourteen. The largest landingstage is the George's stage, and is now 2478 ft. long, and 80 ft. wide. Originally (1847) it was only 500 ft. long, and there was a space between it and the Prince's stage (1000 ft.); in 1874 it was rebuilt but destroyed by fire, and the present stage was com-pleted in 1896. It rests on floating pontoons, and eight bridges join it to the river wall, while a floating bridge takes the heavy traffic. Extensive dredging operations have been carried on to enable the largest vessels to come up the river, and a formidable array of warehouses supply accommodation for a variety of goods. The city is rich in fine parks and public gardens, there being over 1000 acres devoted to this use. The largest of these is Sefton Park (269 acres), which was opened in 1872, though Prince's Park was laid out in 1843. Four other parks have since been made, Wavertree Park having botanic gardens. L. contains many fine buildings, though they are all more or less 1860, and the exchange and revenue buildings should be mentioned. L. cathedral was commenced in 1901, the foundation stone being laid by Edward VII., and the foundation stone of the chapter-house two years The designs are by G. F. Bodley and William Roscoe in the early part of G. Gilbert Scott, and when finished the 19th century, and presented to the will be the largest cathedral in the the gallery in 1894. He also helped country. L. is possessed of three to found the Royal Institution (1817). passenger stations, the An exhibition of modern art is held iterminal

they are not so long, but their depth London and North-Western at Lime is greater. The water area of the Street, the Lancashire and Yorkshire Liverpool docks and basins is 418 at Exchange, and the Midland, Great Northern, and Great Central at Central, while the Mersey Tunnel (1886) connects it with the railways on the Cheshire side of the river. There is also an overhead electric railway running along the docks from Seaforth to Dingle which connects with the Lancashire and Yorkshire Railway, and the Riverside Station at the Prince's Dock, con-necting the landing stage with the London and North-Western. There is also an extensive system of electric tramways run by the corporation. The city is lighted by electric light, and the water supply is excellent, being obtained from reservoirs at Rivington (Lancashire) and Lake Vyrnwy (N. Wales); the latter opened by the Prince of Wales (George V.) in 1910. The city is divided into thirtyfive wards, it possesses a lord mayor (1893), 34 aldermen, and 103 councillors, and returns 9 members to parliament. Since 1309, when parliament. Since 1309, when Thomas, Earl of Lancaster made a Thomas, Earl of Lancaster made a grant, the corporation have owned a good deal of property bringing in a considerable income, and in olden times the fee farm rents and town dues, purchased from the Molyneux family in 1672, and later converted into a perpetuity, were an additional source of income; but in 1856 a bill was passed in parliament transferring these to the Mersey Docks and Harbour Board for the sum of \$41,500,000. bour Board for the sum of £1,500,000. Quarter sessions are held eight times a year, and the Court of Passage sits a year, and the Court of Passage sits five times a year; this latter dates back to the time of King John, and deals with cases relating to the imports and exports of the city. L. originally belonged to the diocese of Chester, but in 1880 they were divided, and L. was made a separate see, Dr. J. C. Ryle being the first bishon and the old parish church of bishop, and the old parish church of St. Peter being turned into the procathedral. It is also a Roman Catho-lic see. The city supports several modern. Of these St. George's Hall charitable institutions, of which the (1854) is the finest. The town hall claritable institutions, of which the conditions of the pullding. The municipal offices, in library, which contains a very fine the Palladian style, were built in 1860 and the evidence and research 0; adjoining it llery, built by 1877, and en-It contains a

paintings, including the Roscoe collection of some annually. lected by the 13th Earl of Derby, and presented 1 F.S.A. The

University College and part of the Victoria University of Manchester, receiving its charter of incorporation in 1881, and being admitted to the University in 1884, but in 1903 it was converted into the University of L. by special Act of parliament, and was incorporated by Royal Charter. The government is constituted by the king as visitor, a chancellor, two prochancellors, a vice-chancellor, and a treasurer, and a court of 300 members representing various bodies. chancellor is the Earl of Derby. grees are conferred in the following subjects: arts, science, engineering, law, medicine, and dental surgery. The medical school originally belonged to the Royal Infirmary, and includes a school of tropical medicine : there is also a veterinary school. It possesses a fine collection of volumes in the Tate Library, and also interest-ing museums. Following on the old Church schools, and an ancient grammar school, the first elementary schools were established in L. in 1826, Board schools appearing in 1870. Other schools founded by the city were the Liverpool Institute (1825), comprising a high school and the L. col-

er became a l in 1905, as House High nd the Inder the training

of boys as officers in the mercantile marine, the latter for the sons and orphans of sailors. L. is first menorphans of sailors. L. is first mentioned historically in a deed executed by King John, then Earl of Mortain, in 1191. The name, no doubt, came from the early Norse inhabitants and was Hilhar-pollr, the pool of the slopes. King John bought it and founded a borough in 1207, and throughout the 13th century we find throughout the 13th century we find Lu used for shipping troops and stores of the Perceval ministry, 1809to Ireland and Wales. Charters were granted to the city by most of the Perceval's murder. His long period of monarchs from Henry III. to William office which he held till his death was and Mary (1835), and in 1880 a royal marked by heavy taxation, repression charter converted the borough!

The property cess of the foreign with other manors by Charles with other manors by Charles some London merchants, and the turn sold it to Viscount Molync vived in 1905 for a Maryborough (for £450), in family it remained until 1672, when it was acquired by the corporation, the Wars of the Roses considerably bury, 1893.

The museum possesses a affected the prosperity of the city, fine collection of stuffed animals col- and during the Civil War it was fortified and held by the parliament, being taken by Prince Rupert in 1644. presented by his son; and the Mayer taken by Prince Rupert in 1644. collection of From 1709 until 1807 L. was actively engaged in the slave-trade; privateering also flourished exceedingly, teering also nourished exceedingly. The area, exclusive of the water area, is 16,619 acres, and the population (1911) 746,566. See D. Droughton, History of Liverpool, 1810; J. A. Picton's Memorials of Liverpool (2 Vols.), 1873; Ramsay Muir, A History of Liverpool, 1907.

Liverpool; 1. A fm. seaport, and

Liverpool: 1. A tn., seaport, and cap. of Queen's co., Nova Scotia, Canada, on the R. Mersey, 65 m. S.W. of Halifax. It is the centre of a large fishing industry and shipbuilding trade. Some gold is mined in the neighbourhood. Pop. 3102. 2. A tn. in New South Wales, Australia, on George's R., 20 m. W. of Sydney. It is on the site of an early settlement in the midst of fine agricultural country, and manufs. paper. 4000.

" " Yes Jestinean first, Liver Earl of .

man, b... came M.P. for Cockermouth (1761), and Under-Secretary of State, and led the 'king's friends' party after Bates's retirement; he filled numerous high offices of state in the Grenville, Grafton, North, and Pitt ministries. He was created Baron Hawkesbury (1786), and Earl of Liverpool (1796). Of his numerous writings his Treatise on the Coins of the Realm, 1805 (reprinted 1880), is of value.

Liverpool, Robert Banks Jenkinson, second Earl of (1770-1828), an Eng-lish statesman and prime minister, son of Charles Jenkinson, first earl. As Foreign Secretary in the Addington ministry he was responsible for the treaty of Amiens, 1801; he was Home Secretary under Pitt, 1804, leading the House of Lords as Lord Hawkesbury; he might have succeeded Pitt in the premiership, but retired till 1807, when he returned to the Home Office in the Portland ministry, and to the War and Colonial Office in the Perceval ministry, 1809-

) Castlereagh and

Liverpool Daily Post and Mercury. The Liverpool Daily Post dates from 1855, being one of the papers that appeared as a result of the repeal of the stamp duty. In 1873 it was acquired by Mr. Holbrook Gaskell, who retained a large interest in it when it came under the management of Mr. A. G. Jeans in 1879. Sir Edward Russell also retaining his position of editor. The Post was always strongly Liberal in politics, and espoused the cause of the North in the American Civil War. It was one of the first newspapers to adopt the use of maps and diagrams, while its political and commercial news and dramatic and literary criticisms have always been noted features. In 1904 the Post absorbed a fellow Liberal journal, the Liverpool Merciry, founded by Egerton Smith in 1811, and published as a daily newspaper since 1858.

Liverpool Plains, a picturesque and pastoral dist. from 800 to 1000 ft. above sea-level in the N.E. of New South Wales. It is divided from the Warrego district by the Darling R.

The chief tn, is Tamworth.

Liverpool Range, lies between the co. of Brisbane and the Liverpool Plain in New South Wales, Australia, and forms part of the Great Dividing Chain; highest point, Oxley's Peak, 4500 ft.

Liversedge, a par. and tn, in the West Riding of Yorkshire, England, 3 m. N.W. of Dewsbury. It has manufs. of cotton, woollen, and worsted goods, iron goods, machinery, and chemicals. Pop. (1911) 14.660.

and chemicals. Pop. (1911) 14,669.
Livery (from late Lat. liberare, in the special sense of distributing), originally meant the provision of food, clothing, etc., for the servants of a household. From this the term came to be applied to a special uniform worn by the servants of greathouseholds, and really includes the uniforms of naval, military, and civil officials as servants of the state. In the 15th century the partisans of the great barons adopted their badges as 'liveries' as a pledge to support them in return for their promise of 'maintenance'; this custom of 'livery and maintenance' was suppressed by Henry VII.

Livery, see COMPANIES, CITY, and

LONDON.

Livery of Seisin, see FEOFFMENT.

Livia Drusilla (c. 55 B.C. 29 A.D.), a Roman empress. She was originally the wife of Tiberius Claudius Nero, by whom she had two sons, Drusus and Tiberius. In 38 B.C. Augustus compelled her husband to divorce her in order that he might marry her himself. She exercised great influence over Augustus, and was suspected of

Liverpool Daily Post and Mercury.

Note: A continued to the papers that some person of the papers that the accession of Tiberius she acted as joint ruler with him, and after his point ruler with him, and after his point ruler with him, and after his point ruler with him, and after his retirement to Caprene, continued to rule in Rome until her death. See her it came under the management of the papers that the son Tiberius, whom she persuaded the son Tiberius to accession of Tiberius she acted as joint ruler with him, and after his retirement to Caprene, continued to rule in Rome until her death. See the son Tiberius to accession of Tiberius she acted as joint ruler with him, and after his retirement to Caprene, continued to rule in Rome until her death. See the son Tiberius to accession of Tiberius she acted as joint ruler with him, and after his rule in Rome until her death. See the properties the properties the son Tiberius to accession of Tiberius she acted as joint ruler with him, and after his properties the properties the son Tiberius to accession of Tiberius she acted as joint ruler with him, and after his properties the properties the properties the son Tiberius she acted as joint ruler with him, and after his properties the properties

Livingston, a seaport of Guatemala, Central America, at the mouth of the Rio Dulce, on the Gulf of Amatique. The chief exports are coffee, bananas, hides, mahogany, and rubber. Pop.

2000.

Livingston, a city and county-seat of Park co., Montana, U.S.A., on the Yellowstone R., 100 m. S.E. of Helena. It lies at an altitude of 4485 ft., and is within easy reach of the Yellowstone Park region. It has coal, coke, and gold mining industries, lumber mills, lime works, and machine shops.

Pop. (1910) 5359.

Livingston, a famous American family founded by Robert L. (1654-1725) who was born at Ancrum, Scotland, and emigrating to America about 1673, received grants to 'Livingston Manor' on the Hudson. His grandson, William Livingston (1723-90), became a famous political leader on the side of the Dissenters. He served in the New York legislature (1759-60), but his influence was chiefly exerted in the columns of the Independent Reflector (1752-53), and the New York Mercury (1754-55). William's brother, Peter van Brugh Livingston (1710-92), was a prominent merchant and a political leader on the Whig side in New York, and another brother, Philip Livingston (1716-78), a signer of the Declaration of Independence, was also a leader of

of Independence and a political pamphleteer under the name of 'Decius.'
Livingston, Edward (1764-1836), an American jurist and statesman, born in Clermont, Columbia co., New York. He was Republican representative in Congress (1795-1801); United States District Attorney for New York City in 1801. In 1803 he removed to Louisiana and built up a great law practice at New Orleans. In 1820 he became a member of the legislature of Louisiana, and drew up the 'Livingston Code' of criminal law. He was again a member of Congress from 1823-29, a senator in 1829-31, and Secretary of State under President Jackson, 1831-33. In 1833 he was appointed ambassador to France. See Livingston's Criminal Jurisprudence, 1873, and C. H. Hunt,

Life of E. Livingston, 1864. Livingston, Robert R. (1746-1813),

an American jurist and statesman. brother of Edward L. He was called to the bar in 1773, and was Recorder of New York from 1773-75. He was a member of Congress, and a member of the committee which drew up the 'Declaration of Independence,' as

well as of the committee which drew up the first constitution of the state of New York, of which he was the first chancellor (1777-1801). At the same time he was Secretary for Foreign Affairs (1781-83), and president of the New York Convention From 1801-04 he was ambassador to France, and negotiated the purchase of Louisiana. He was an ardent agriculturist, introducing the use of gypsum as a fertiliser, and, in conjunction with Robert Fulton, did much to further the experiments

with steam navigation. See Fred. de Peyster's Biographical Sketch, 1876. Livingstone, a township of Northern Rhodesia, on the l. b. of the Zambesi R., about 3½ m. from the Victoria Falls. A reach of the river about 3 m. from L. forms one of the finest boat-ing courses in the world and a sculling ing courses in the world, and a sculling competition was inaugurated here in 1910. L. is the administrative cap. Northern Rhodesia, and has a white pop. of about 300.

Livingstone, a par. and vil. of Lin-lithgowshire, Scottand, 3 m. E. of Bathgate; has oil works. Pop (1911)

3714. Livingstone, David (1813-73), Scottish missionary and explorer in Africa, born at Blantyre, Lanark-shire, Scotland. At the age of ten he was working in a cotton factory at Blantyre, but this did not prevent him reading, and when he was twentythree he entered on a course of study at Anderson's College, Glasgow, and later determined to become a misstonary. With this aim in view he studied medicine, and in 1838 he offered himself to the London Missionary Society, attracted bv their unsectarian character, and was accepted by them, and in Nov. 1840 he took his medical degree in the faculty of physicians and surgeons in Glasgow. His ambition had been to go to China, but as Great Britain was then at war with that country this was impossible, and the field selected for him was Africa. L. left England in Dec. 1840, arrived at Cape Town early in 1841, and went straight to Bechuanaland to the mission station established by Robert Mosat at Kuruman. He married, in 1844, Mary Woster daughten of the forecast mission station. Moffat, daughter of the famous mis-

the Upper Zambesi, but owing to their illness he decided to send them home to England, and so they worked their way back to Cape Town, which

they reached in April 1852.

Returning N. to Linyante, the capital of the Makololo, he determined to open up a route into the interior, and ascending the Liba he reached Lake Dilolo, Fob. 20, 1854; from there he went across the Kwango and arrived at Loanda on May 31, half dead from fever and starvation. Having sent home parti-culars of his wonderful journey, he returned to Linyante, arriving there in Sept. 1855. Realising that the W. route was of no use for his purpose he next set off to follow the Zambesi to its mouth, and a fortnight after leaving Linyante he discovered the famous Victoria Falls. Continuing his journey he reached Tete, March 1856, and then proceeded to Quilimane, where he arrived in May. In Dec. of the same year, he returned to be a supportant of the same year. England, having accomplished one of the most marvellous journeys on record, necessitating a reconstruction of the map of Africa, and making for himself a name something more than famous. While at home he quietly separated himself from the London Missionary Society, and in 1858 accepted an appointment as consul at Quillimane, and the command of an expedition to explore Eastern and Central Africa, in which he was ac-companied by his brother, Charles L. and Dr. (afterwards Sir) John Kirk.

This second visit to Africa was fraught with trouble, and ended in the recall of the expedition and the loss of his appointment. The Universities Mission that he established broke down owing to the death of Bishop Mackenzie, and a greater blow was the death of his wife at Shupanga, April 1862. Geographically, however, he had done valuable work; he had explored the Shire R., discovered lakes Shirwa and Nyasa, laying the foundation for the Nyasa-land Protectorate, and, above all, he had opened the eyes of the world to the horrors of the slave trade. He returned to Evelond in 1911, 1961 returned to England in July 1864, and after a year at home started on his last journey to Africa. He was appointed consul to Central Africa without a salary, the government contributing only £500 to the expedi-tion, and the Geographical Society supplying the same amount. His object was to find the sources of the Nile, and from 1866 he was lost to the sionary. In 1849, in company with sionary. In 1849, in company with the great hunter Oswell and Mungo Murray, he discovered Lake Ngami. from Lake Nyasa to Lake Tangan-In the following year, with his wife the making valuable observations and children, he made a journey to but losing his health and strength in

the attempt. It was during this period trade in grain and live stock. that he encountered the famous Arab slave dealer, Tippoo Tib, and it was due to the accounts he sent home of the horrors he witnessed that the trade was eventually suppressed. Worn out with all he had gone through, L. reached Ujiji in Oct. 1871, and it was here that H. M. Stanley found him, having been sent out to search for him by Mr. Gordon Bennett of the New York Herald. They remained together until March 1872, exploring the N. end of Tanganyika, then Stanley reluctantly left him, and L. proceeded on his way S. alone, but his health grew rapidly worse, and on May 1, 1873, rapidly worse, and on May 1, 1813, are the Fernanda are many rivers and his faithful followers found him dead. yarvi, and there are many rivers and They were then at Chitambo ude the Dwina with on the Lulimola in Ilala, and

so well illustrates the deep that L. inspired in his follo his unfailing kindness and humour as Rye, barle;

that journey taken aerc carry his body to Zanz there it was conveyed to

The value of L.'s life and work are beyond estimation. As a missionary he was the greatest pioneer there has ever been, for he opened up the whole of Central Africa to the influences of Christianity, and he was the means of abolishing the slave was the means of aboutining one saive trade; as an explorer he was unequalled, he travelled over one-third of Africa and altered the whole of African geography, the keenness of his observation, coupled with his scientific training, rendering his work. of the utmost value, while his life and example have made him an inspiration for all time. He published an account of his first journey in a an account of his inst journey in a book entitled Misionary Travels in South Africa (1857), and his second journey in The Zambesi and its Tributaries (1865), and his Last Journals were edited by his friend, the Rev. Horace Waller (1874). See Stanley's How I found Livingstone and Autobiography, 1872; and W. G. Blaikie's Life 1880. Life, 1880.

Livingstonia Mission was established in 1875 by the Free Church of Scotland at Cape Clear, on the S. shore of Lake Nyasa. It was called after Dr. Livingstone, its object being to carry out his plans for the suppression of the Portuguese and Arab slave trade on the E. coast of Africa. In 1883 the mission moved to Bandawé, on the W. shore of the lake, on finding its former situation very un-healthy. See LAWS, ROBERT.

Livius, Andronicus, see ANDRONICUS

Livius.

a fortified tn. of Bosnia, Livno, 70 m. W. ot Sarajevo.

Pop. 5300.

Livny, a tn. of Central Russia, in the gov. of Orel, 80 m. S.E. by E. of that city. It stands on the R. Sosna, and has a considerable trade in grain, cattle, leather, flax, etc. Pop. 20,000.

Livonia, Livland, Livlyandya, or Libmaa, a gov. of Russia, one of the three Baltic provinces. In the province are included the islands of Esel, Mohn, and Paternoster, which with others form a group in the Gulf of Riga. Total area 18,160 sq. m. The country is flat and marshy, covered with dense forests. The chief lakes are the Peipus or Chudskoe, and Virz-

was buried in Westminster Abbey, tures, including distilling, oil-press-April 1874. ing, sugar refining, and there are paper mills, woollen and cotton factories, tobacco, cork, soap, and petroleum works. L. was won from Sweden by Peter the Great, and it was formally ceded to Russia by the treaty of Nystad (1721). In 1835 the Russian code was introduced, and in 1867 the Russian language was recognised as the official language of the law courts. The capital is Riga, and other important towns are Dorpat and Wenden. The pop. of 1,443,700 is made up chiefly of Letts and Esthonians, with a fair sprinkling of Russians and Germans.

Livorno, a tn. of Italy, situated in the prov. of Novara, Picdmont, 17 m. W. by S. of Vercelli. Pop. 6200.

Livorno, see LEGHORN.

Livre, an old French coin and the unit of the French money system. Previous to 1667 two Ls. were coined. the L. tournois and the L. parisis. The first was divided into twenty sous, each of which was divided into four liards or twelve deniers, and this L. was general throughout France. The second was divided in the same way. but equal in value to twenty-five sous tournois; this was suppressed later on. The L. tournois remained the monetary unit until 1795.

Livy, or Titus Livius (59 B.C. - 17 A.D.), a Roman historian, born at Patavium (Padua). He was born of good family and was well educated, being a student of Greek literature, rhetoric, and philosophy. He sympathised with the Republican party during the Civil War, and later, when admitted to the court of Augustus. There is a unlike his contemporaries Horace and

Virgil, he declined to flatter the em- horned moloch, or thorn devil. It is peror, and prophesied the fall of the covered with rows of prickles; fortu-Roman empire. However, he en-Roman empire. However, he enjoyed the friendship of Augustus, and continued friendly relations with Claudius, but on the accession of Tiberius, in 14 A.D., he retired to his native place, where he died. L's history, Ab Urbe condita Libri, relates the history of Rome from its niythical foundation down to the death of Drusus in 9 B.C. It was divided into 142 books, of which only thirty-five remain, but epitomes of all except the 126th and 127th books have come down to us. L. is books have come down to us. L. is on the whole open-minded and sympathetic. His facts are not always trustworthy, for he was too credulous of the traditional accounts of previous authors, and did not avail himself as much as possible of authentic documents. The best editions of the text are those of Madvig and Ussing (1863-73), and Walker, with notes (1797-1813). The best English translation is that of Philemon Holland (1600). Consult Mackail's Latin Literature (1895).

Lixouri, or Lixourion, a seaport tn. of Grecce in Cephalonia, on the E. coast on the Gulf of Argostoli. It is a depot for wines and currants. Pop. 5000.

Lizard, a general name for a large Lizard, a general name for a large variety of reptiles belonging to the order Lacertinia. The limbs may be well developed, as in the common L, or almost absent, as in the serpents. Ls. lack the separable jaws of the latter, and have neither the bony plate armour nor the socket-lodged tests of the gracedile. Two Ls only teeth of the crocodile. Two Ls. only are found in Great Britain, though the

on heaths and banks from early spring to autumn. It is about 6 in long and is greenish brown on the upper part. The under parts are bright orange spotted with black in the male, and in the female plain pale greyish-green. The eggs hatch as soon as laid. The sand L. (L. agilis) occurs in the S. of England; it is usually a sandy brown with darker bands and black Llandaff, a city of Glamorgan, spots at the sides; an occasional greenish hue sometimes confuses it is regarded as the oldest in Great with the green L. It is 7 in. long. The Britain; its cathedral was restored in eggs are laid in a hollow in the sand, 1844-69. Pop. 6000.

Covered, and left to incubate. These Ls. are insectivorous; many of the court (1862) the large Matthews. first Visconia.

nately it is only 6 in. long. Tiny also is the dragon-like basilisk of Central America. The flying gecko of Java has developed powers of gliding, a mem-branous expansion of the skin from limb to limb acting as a parachute.

Lizard, Battle off the, took place in the first Dutch War off the Lizard point on June 12, 1652, when Sir George Ayscuo succeeded in capturing six vessels out of a fleet of forty Dutch merchantmen, which he over-took on their voyage to the East Indies.

Lizard Head, or Lizard Point, the most southerly point of Great Britain, situated in Cornwall, England, in lat. 49° 57′ 30″ N. and long. 5° 12′ W. The principal village is Lizard Town, 10½ m. from Helston. There are several small bays, the most notable being Kynance Cove. The Lion's Den, another interesting feature, is a chasm formed in 1847 by the colchasm formed in 1841 by the con-lapse of a cave. A dangerous reef, known as the Stags, stretches S. off the Point. There are two lighthouses. Ljusdal, a com. of Sweden, in the prov. of Gefleborg, on the R. Ljusne, 55 m. S.W. of Sundsvall. Pop. 10,299.

Ljusne, a riv. of Sweden in the provinces of Ostersund and Geffeborg. It flows eastward for 240 m., and enters the Gulf of Bothnia 6 m. S. of Söderhamn.

Llama, a member of the camel family, native of Peru, is, to a diminishing extent, used as a beast of burden. It is white and sometimes spotted with brown or black. The fleece is long and silky and of con-siderable value. The flesh is exten-sively eaten. The L. is much smaller than the camel and has no dorsal hump.

Lianberis, a par. and tn. of Car-narvonshire, Wales, 8½ m. S.E. of Carnarvon. The scenery is wild and mountainous; the old village is at the foot of Llanberis Pass. There are two lakes, Llyn Peris and Llyn Padarn, and on the border of the former is Dolbadarn Castle. Slate quarrying is extensively carried on. Pop. (1911) 3000.

covered, and left to incubate. These Liandaff, Henry Matthews, first Vis-Les, are insectivorous; many of the count (1826-1913), an English jurist foreign Ls, devour birds, eggs, and mice, and even larger animals. Some was admitted as a barrister in 1850, are purely vegetarian. One of the most remarkable Ls, is the frilled L. of Lincoln's Inn in 1868. He sat on of Australia. The frill is a crenated the Conservative side of parliament, membrane arising from the hinder part of the head. In the same contained the conservative side of parliament, representing Dungarvan (1868-74) and E. Birmingham (1885-92), being tinent occurs the extraordinary Home Secretary under Lord Salis-

a viscount in 1895.

Llanddeinolen, a par. of Carnaryon-shire, Wales, 4 m. N.E. of Carnaryon. It contains prehistoric antiquities, and there are slate quarries, writingslate works, and a woollen factory. Pop. 6000.

Llandebie, a par. and vil. of Car-marthenshire, Wales, situated on the Loughor, 5 m. S. of Llandilo. The district is mountainous, and coal and limestone are abundant. Pop. (1911)

6400.

Llandilo, or Llandeilo Fawr, an urban dist. and tn. of Carmarthen-Wales, situated on a height above the Towy, which is here crossed by a fine bridge. There are breweries,

by a me ornage. There are breweries, timber mills, hosiery factories, and a trade in corn. Pop. (1911) 1932.

Llandovery, a municipal bor. and th. of Carmarthenshire, Wales, on the Towy, 18 m. N.W. of Brecon. Agriculture and brewing are the in-

dustries. Pop. (1911) 1993. Llandrindod Wells, an urban dist. and market town of Radnorshire, Wales, situated on the Ithon, 6 m. N.E. of Builth. It is a popular health resort, possessing medicinal springs. There are numerous Roman remains. Pop. (1911) 2779.

Lianduno, a popular seaside resort of N. Wales at the mouth of the Conway on the Irish Sea, 37½ m. W. of Liverpool. A very fine marine 'drive' encircles the Great Orme, and there are noted caves under the Little Orme, also Druidical remains. Pop. (1911) 10,469.

Lianelly, a scaport, parl. bor., and market in of Carmarthenshire, Wales, on Burry Inlet, 10 m. N.W. of Swansea. Coal is extensively shipped from the docks, and there are large copper smelting works, potteries, rope works, saw mills, and manufe. of bricks, tinplate, and chemicals. Pop. (1911) 32,077.

Llanes, a seaport of Oviedo, Spain, on the Bay of Biscay. The principal trade is in agricultural and dairy produce, fish, and timber.

20,000.

Llanfairfechan, a small tn. of Carnaryonshire, Wales, 6 m. W.S.W. of Conway. It is a favourite summer resort, possessing a fine sandy beach and facilities for sea-bathing. Pop. (1911) 2973.

Llanfairpwilgwyngyll, a par. and tn. of Anglesey, Wales, on the Menai Strait, 4 m. W. of Bangor.

Pop. (1911) 1000.

Llangollen, a par. and tn. of Denbighshire, Wales, on the Dee, 9 m. S.W. of Wrexham. It is a popular Wales, 12 m. S. of Conway, on the Summer resort. L. is noted for its linen and woollen manufs., and there are slate quarries, coal mines, etc.

bury from 1886-92. He was created The Vale of L. is noted for its beauty. a viscount in 1895. Pop. (1911) 3250.

Llanidloes, a municipal and parl. bor, and market tn. of Montgomeryshire, Wales, on the Severn, 11 m. W.S.W. of Newtown. The Welsh flannel manuf. is largely carried on here, and lead and zinc are obtained in the vicinity. Plinlimmon is partly in the parish, and tourists wishing to ascend it usually start from the town. Pop. (1911) 2594.

Llano Estacado (from the Sp. Llano, a flat field), an elevated plain in the U.S.A., partly in the S.E. of New Mexico and the N.W. of Texas. It slopes generally to the N., and the stake-like holes of the yuca tree, which grows abundantly on the plain,

have given it its name.

Lianos, the name given to vast plains in the N. of S. America. They are generally level, and extend from the Orinoco delta inland to Yapura, a feeder of the Amazon. The estimated area is 300,000 sq. m., and the greater portions are sandy and lacking in vegetation, except near the rivers, when in the rainy season great stretches are 12 and 15 ft. under water. Forests cover a small part, and in the grassy portions herds of cattle are reared.

Llanquihue, a prov. of Southern Chile, between the Andes and the sea. Cap., Puerto Montt, on the Bay of Reloncavi. The northern part of the province consists of a broad plain, but in the S. it is intersected by narrow fjords and has fine rugged The most important industry is grazing, and it produces wheat, barley, and timber. It covers an area of 35,390 sq. m. Pop. 105,000.

Llanquihue Lake, in the prov. of Llanquihue, Southern Chile, 14 m. N. of Puerto Montt. It is the largest fresh-water lake in Chile, and covers an area of about 230 sq. m. It has an altitude of 170 ft., and is deep and later. clear. The volcances of Osomo and Calbuco rise above it. The lake is Calbuco rise above it. The lake is drained S.W. by the R. Maullin into the Pacific.

Llanthony, ruins of a Cistercian abbey founded in 1108 for Austin canons, in Monmouthshire, 9 m. N. of Aberravenny. The architecture is in the Transition Norman style, and the church and chapter-house form a fine ruin. Walter Savage Landor, after his marriage, lived in the Philippe Lodge (new converted) the Prior's Lodge (now converted into an inn), and during his sojourn there made many attempts to im-

Lierena, a tn. of Badajoz, Spain, the abbey choir (1852-60), and later 52 m. S.E. of Badajoz. It possesses became solo tenor at the Chapel be in S.R. of Badajon. It possesses a copy of the tower of the Giralda of Seville. Near by the French cavalry were routed by the British on April 11, 1812. Pop. 7000.

Llewelyn the Great (d. 1240), Prince of North Wales, born after his father's expulsion, recovered the paternal inheritance in 1194, while still quite a young man. After his accession he married the illegitimate daughter of King John, but continual quarrels arose between him and his father-inlaw, who reduced L. to submission in 1211. In the following year, the latter recovered all his losses in North Wales, and in 1215 took Shrewsbury. Throughout his reign he was continually at war with the Marchers of South Wales, and was frequently attacked by English armies at the beginning of Henry III.'s reign, not acknowledging that king's suzerainty till 1230. In the following year he abdicated in favour of his son David, and retired to a Cistercian monastery.

Liorente, Jean Antonio (1756-1823), a Spanish historian, born at Rincon del Soto in Aragon. On taking holy orders received rapid promotion, being appointed vicar-general of Calahorra (1782), commissary of the Inquisition at Legroño (1785), canon of Calahorra, and general secretary to the Inquisition at Madrid (1789). In 1806 he was appointed canon of Toledo, but his advanced views made him unpopular, and, on the defeat of King Joseph, retired to France, where he completed his Historia critica de la inquisicion de España (1817-18), which was immediately translated into many European languages and avolved ruth critism. On the while eroked much criticism. On the publication of his Portraits Politiques des Papes (1822) he was requested to leave France, and died soon after on reaching Madrid. His other works include, Memorias para la historia de la revolucion española, 1814-16, and Notica biografica, 1818. Lloyd, Charles (1775-1839), a poet,

published at the age of twenty his first volume of poetry, which attracted the attention of Samuel Taylor Coleridge, with whom L. subsequently lived (1796-97). Through Coleridge he became acquainted with Lamb, with whom he was soon on intimate terms. In 1798 appeared Blank Verse, by Charles Lloyd and Charles Lamb He published several volumes of verse, and his best work is probably to be found in Desultory Thoughts in

London (1821). became insane.

Shortly after, he

became solo tenor at the Chapel Royal. In 1867 he appeared at concerts, and in 1871 took part in the Gloucester Musical Festival. Since 1888 he has been the principal tenor at the Handel Festivals, and has toured in the United States (1888, 1890, and 1892). He formally retired in 1900.

Lloyd George, David (b. 1863), M.P. for Carnarvon dist. since 1890, Privy Councillor, 1905, Chancellor of the Exchequer since 1908, D.C.L. (hon.), Oxford. He was born at Manchester, son of William George, Master of Hope Street Unitarian Schools, Liverpool; educated at Llanystymdwy Church School and privately. A solicitor by profession, he is politically a militant Radical Nonconformist. He opposed the Conservative government's Agricultural Land Rating Act, Voluntary Schools Act, and Tithe Rent Charge Act; was suspended over the Rating Bill for refusing to leave the House when a division was called. He criticised the Educa-tion Bill (1902), and opposed the S. African War, a political visit to Birmingham at the time lead-ing to serious riot. He headed the Welsh educational agitation. Under Campbell-Bannerman he President of the Board of Trade, and later Chancellor, his budgets rousing much controversy. His latest work is the Insurance Act, 1911.

Lloyd's, is an association of under-writers, shipowners and marine in-surance brokers. The name is derived from the coffee-house of Edward Lloyd (17th century) in Tower Street, where merchants met together for social and business purposes. In 1692 Lloyd moved into larger quarters at the corner of Lombard Street and Abehurch Lane, where his house be-came the great centre of business and exchange in all matters concerned with marine commerce. In 1696 this enterprising proprietor founded Lloyd's News, to supply marine intelligence, which was renewed in 1726 as Lloyd's Post. In 1774 L.'s moved to the former premises of the East India Company in the Royal Exchange, which remain their present head-quarters. About this time the various merchants, brokers, and under-various merchants, brokers, and under-writers appear to have united for their common interests. In 1811 the ofter the

corporated by parmament. Lloyd, Edward (b. 1845), an English sides insuring property affoat, is the tenor, born in London, the son of great centre of supply and distriction of shipping intelligence, minister Abbey. He was trained in vidual underwriters have

bу irs, inbemarine matters are issued by the institution, such as Lloyd's Weekly Shipping Index, and Lloyd's Consult Martin's History of Lloyd's, 1876.

Lloyd's Bonds, were devised by an John barrister, English Horatio Lloyd, to enable a company to borrow in excess of its statutory They are issued by railway powers. companies, under their seal, as an obligation for work done or materials supplied by contractors, and as a promise to pay the due amount with interest at a future date. Such bonds should not be issued without consent of the shareholders of the company, and are not valid as an obligation to pay back a mere loan of money.

Lloyd's Register of British Foreign Shipping, a society formed for the classification of vessels according to their strength and capacity for carrying cargoes. affairs are managed by a committee of fifty members, composed of merchants, shipowners, and underwriters, who are elected at the chief ports of the country. Under the committee is a staff of surveyors, who supervise and report on the construction of vessels and engines, and of inspectors who examine the boilers, chains, anchors, etc., of a vessel after construction. Wood vessels are assigned the characters A1, Æ1, etc., while iron and steel vessels are assigned observed to the characters A1, Æ1, etc., while iron and steel vessels are assigned characters 80 A1 up to 100 A1, the highest class. Under the authority of parliament, the society fixes maximum load-lines to merchant ships, and tests the anchors and chains at the public proving houses. A

Llywarch Hen Poems, see WALES-

Literature.

Lo, St., a tn. of France, cap. of the dept. of Manche, on the Vire, 47 m. S.E. of Cherbourg. There is an interesting church of Notre Dame, which was formerly a cathedral. It dates from the 14th century, and was restored in the 17th century. 9000.

Loach, a small fish peculiar to the Old World. There are three European

independence in all business transactions, but are required to deposit securitities from £5000 to £10,000. In the flesh is very delicate. It has securitities from £5000 to £10,000. In the flesh is very delicate. It has securitities from £5000 to £10,000. It the flesh is very delicate. It has securitities from £5000 to £10,000. It the flesh is very delicate. It has securitities pare for the proper lip. The spined L. or groundling (Cobitus tania) is rare in Britain. Its main distinction is a marine matters are issued by the small bifid spine below each eye, institution, such as £loyd's Weekly which is erectile at will. The giant L. (Misgurnus fossilis) which occurs on the Continent of Europe measures

up to 10 in. in length. Load Line, a line 18 in. long, drawn through a circular disc, 12 in. in diameter, painted on a vessel to indicate the depth to which a vessel is allowed to sink in salt water, accordallowed to sink in salt water, according to law, after being loaded. It was enacted, through the influence of Mr. Plimsoll, that every British ship must be so marked, amidships, by the Merchant Shipping Act of 1876. Any owner, who fails to comply with this law, is liable to a penalty not exceeding £100 for each offence. In 1890 the law was amended so that the fiving law was amended so that the fixing of the height of the L. L. should be under the control of the Board of Trade. In the Merchant Shipping Act of 1906, the L. L. was raised as a concession to the shipowners. Since that the test approximate the control of the shipowners. that Act came into operation the death-rate among British seamen went up so considerably that in April 1913 parliament decided to appoint a committee to inquire into the matter. See PLIMSOLL, SAMUEL; and MERCHANT SHIPPING.

Londstone, see Magnetite. Loam, a soil mixture of sand and clay; the preponderance of one or the other makes the L. light or heavy in texture. Heavy Ls. need to be well manured with stable manure to improve the texture, and lime is necessary at intervals to make the fertilising elements available for plants. Light Ls. are easily worked and tests the anchors and chains at all the public proving houses. A register containing particulars with regard to the classification of British and foreign sea-going vessels is issued to pot plants, the best is an equal mixture of sand and clay with an abundance of fibre and is the principal part of the company of the company of the principal part of the company of the princip with an abundance of fibre, and is usually the top 3 or 4 in. from old pasture land. All loamy soils are well suited for farming and general gardening, those with sand ponderating are best for early crops. Clay Ls. are better for late crops.

Loan: 1. Loan of things.—If A delivers goods to B to be taken care of gratuitously, B, the depositary, is not entitled to make use of the goods, unless no harm would come to them by his so doing. Hence goods which on World. There are three European genera, and two are represented in wolld be consumed by use cannot Britain, each by a single species. The common or stone L. (Nemachilus deposits his horse with B, B not barbalulus) frequents clear shallow only may but ought to give it proper streams, living entirely on animal exercise. But in all such cases the

539 mode of custody depends on the terms of the arrangement, and, in general, a deposit is not a L. at all. The true bailment for L. is called "" the control of after the civil law, a 'commodation,' or the L. of a thing to be returned just as it is. If A lends B his bicycle to ride home on, B, of course, is not entitled to bring back a different blevele. For the horrower must bleycle. For the borrower must strictly follow the terms of the L., sencery follow the terms of the L., and an arrangement by which he could return similar things would apply only to such things as consumable articles, c.g. a packet of tea, postage stamps, and then the arrangement should, properly, be what is called mutuum. The borrower must return the thing in as good order as the had it reasonable greater and teasure. he had it, reasonable wear and tear excepted, but is not responsible for loss by accident or theft due to no carelessness on his part. In a mutuum, on the other hand, the borrower must, in all events, return an equivalent of the thing borrowed. The borrower has no lien (q.v.) on the thing for antecedent debts due to him, nor can he retain the thing against expenses of keeping it; but he is entitled to damages it injured by defects in the thing which the lender was aware of but did not disclose. 2. Loan of money may be either on personal security only, or as by note of hand, or it may be secured by a charge (see EQUITABLE CHARGE), or mortgage of real or personal property. If nothing is said in a contract of L. about interest, the lender would ordinarily be entitled to be paid interest at the current or market rate. See also

Loanda, São Paulo de, a seaport on the W. coast of Africa, cap. of the Portuguese colony of Angola, situated between the mouths of the Bango and Kwanga, and protected from the sea by a narrow sandy island, 18 m. long. It thus affords good harbour to vessels and has a floating dock. It It! has a moteorological observatory, well-built government offices, gasworks, tramway lines, etc. The chief trade is in tobacco, india-rubber, coffee, and cocoanuts. Pop. 23,000.

Loango: 1. A dist. of W. Africa, extending closer the coest of the

extending along the coast of the Atlantic, northwards from the Cougo. It was divided between Belgian Congo, Portugal, and France by the Berlin Conference of 1885. The exports consist of gums, wax, palm-oll, copper, ivory, etc. 2. An im-portant port of French Equatorial Africa on the coast, 100 m. N. of the mouth of the Congo.

Loanhead, a th. in Midlothian, Scotland, 6 m. S.S.E. of Edinburgh. There are paper mills and coal mines. Pop. (1911) 3483.

MONEYLENDING.

Loans, Public. The Public Works Loan Commissioners are a body set up by the Public Works Loans Act, 1875, for the purpose of making ad-vances to local authorities and others out of moneys placed at their disposal by the state, from time to time, for the execution of works of public benefit. The increase of their powers is to a considerable extent subject to the control of the Treasury. They are authorised to lend on the security of the rates at a rate of interest, which is fixed by the Treasury, at various periods (e.g. under the Treasury Minute of March 21, 1904, the rate was fixed at 31 per cent.), and they are required to make a report of their transactions during each financial year to the Treasury, which report is presented to parliament. The purposes for which they are empowered to lend money are to be found in the first schedule to the Act of 1875, and in a number of Acts passed since that date relating to different matters of date relating to different matters of local government, e.g. under the Housing Act of 1890, the commissioners may lend to a public utility society, railway company, or dock or harbour company for the purpose of facilitating the construction or improvement of dwellings for the starting classes. Under the Bathe working-classes. Under the Baths and Washhouses Act, 1878, a district council can borrow money for establishing a public bath or washhouse. Money can only be borrowed for 'permanent works.' Usually the Local Government Board are the authority to determine the time in which a loan shall be repaid. As a fifty years, but it may be more in certain cases, c.g. under the Housing Act, 1909, a loan may be outstanding for eighty years. Subject to the agreement under which the advance was made, a loan must be repaid either by equal annual instalments with interest, or by means of a sink-ing fund, which, with the accumulations of compound interest from the investment of such fund in government securities, will suffice to pay off the loan within the sanctioned period.

Loan Societies are societies or associations established under the Loan Societies Act, 1840, for the purpose of advancing money on loan to persons of the working class, to be repaid with interest by instalments. L. S. will be deprived of the benefit of the Act altogether, and will therefore be illegal unless they submit their rules for approval by the registrar of signally equities and some account friendly societies, and send a copy of the rules certified by the registrar to be recorded with the clerk of the peace, or clerk to the county council.

that a magistrate still has power to make inquiries in order to satisfy himself that any particular society is not a fraud on the statute. The rules can only be altered with the approval of the registrar. No greater sum than £15 can be lent to any one person. No second or other loan can be made to the same person until the antecedent loan has been repaid. No antecedent loan has been repaid. No note or security given to a L. S. is either liable to stamp duty or capable of being transferred. of being transferred. By the combined effect of the Act of 1840 and the Loan Societies Act, 1863, loans are recoverable by demand in writing left with or sent by post to the borrower by the treasurer of the society; if the borrower neglects to comply with the demand the treasurer may prefer a complaint to a justice of the peace, who may summon the borrower and his sureties (if any), and after hearing the case, order such sum to be paid to the treasurer as appears to be due, together with such a sum for costs not exceeding five shillings as seems reasonable.

Loasa, a genus characterised by the stinging hairs on the leaves and stems which make cultivation risky. Some species are short and bushy in habit, while others are climbers and trailers. The flowers are white, yellow, and red, and are usually very showy. Natives of Chile and Peru, the annual and biennial species can be grown on a sunny border out of doors. There are a few evergreen perennials in the genus, but these require greenhouse treatment. The order Losaacee con-tains less than a hundred species which are confined to the American continent.

Lobachevsky, Nicholas Ivanovitch (1793-1856), a Russian mathematician, born at Nijni-Novgorod. In 1807 he became a student at the University of Kazan, and syears later became assistant seven fessor, and extraordinary professor in 1816. In 1823 he was elected to the chair as professor of mathematics, retaining it till 1846. L. was a pioneer of the modern geometries of the non-Euclidian theory. Amongst Principles his principal works are: Principles of Geometry; Imaginary Geometry; Pangéométrie, etc. See F. Engel,

N. I. Lobatchewsky, 1899. Lobanov, Rostovski Alexis Borissovitch, Prince (1825-96), a Russian statesman. In 1844 he entered the economic dept. of the Ministry of Foreign Affairs, and six years later became attaché of the Russian embassy at Berlin. After the Crimean War, from 1859-63, he was minister Chinese Turkestan, divided into two plenipotentiary at Constantinople. He represented the Russian govern- It formerly constituted the final re-

Notwithstanding such approval it ment at Constantinople (1878), London (1879), and Vienna (1882-95). He then became Minister of Foreign Affairs, but died suddenly the next year.

Lobau: 1. A tn. of Saxony, Germany, on the Schwarzwasser, 12 m. S.E. of Bautzen. There is a noted spa visited yearly by great numbers of people. The industries include pianoforte factories, sugar factories, spinning, weaving, bleaching, dyeing, etc., and a trade in linen, yarn, and hosiery. Pop. 11,256. 2. An island of Lower Austria, 7 m. below Vienna, in the Danube. It is 4 m. in length. The French were entrenched here in 1809 for six weeks.

Loberion, a tn. of Prussia in the Rhine Province, 8 m. W.S.W. of Kempen. Pop. 7816. L'Obel, Matthias de (c. 1538-1616), a French botanist, born at Lille, who gives he name to the lobelia plant. He journeyed in various parts of Europe, gaining a wide knowledge of plants on his wanderings. James I, appointed him to be his botanist, and Lord Zouche placed him in charge of his garden at Hackney, N. London. He is the author of several Latin works on plants.

Lobelia, a large and varied genus of annuals and perennials, some hardy, some tender, belonging to the order Campanulaceæ. L. cardinalis, or cardinal flower, is a tall perennial, nearly hardy, bearing flowers of a rich 'cardinal' crimson during the late summer and early autumn. crinus, a S. African species, has given rise to a large number of dwarf bedding varieties of various shades of blue, white, and maroon. L. fulgens, like L. cardinalis, is a N. American species, growing from 1 to 3 ft. fall, flowering in May. Its varieties include white, rose, violet, and blue colours. L. syphilitica is hardy, and has given rise to numerous blue and white hybrids. The dwarf Ls. do best in a light soil, but the taller species need abundant plant food and frequent watering.

Lobengula (1833-94), became king of the Matabele in 1870 on the death of his father, and made Buluwayo his capital. In 1888 he signed a treaty capital. In 1888 ne sigued a deady with England admitting her suze-rainty, but on the British S. Africa Company receiving permission to settle in Mashonaland in 1892, I. made repeated raids against the capital. English, and in 1893 his capital was taken, and he was forced to fly,

Eastern Turkestan, but the investiga-tions of Przhevalski in 1877 and 1882 and of Sven Hedin prove the boundaries to be shifting. The lake is now only a few feet deep, and is rapidly becoming dried up. In 1885 Przho-valski found about 400 Turks and Mongols settled on its confines. The altitude of the lake is 2600 ft., and at the W. end of the former lake there is a village of Lob.

Lobo, Jeronimo (1593-1678), a Jesuit missionary, born at Lisbon. In 1621 he went to India, but in 1625 left for Abyssinia, where he began his missionary labours, being super-intendent of missions in Tigre for nearly ten years. L'Abbe Legrand published a French translation of L.'s Portuguese MS. account of his travels in Abyssinia, translated again into English in an abridged form by

Dr. Johnson.

Lobos, or Seal Islands, two small groups of rocky islands in the Pacific Ocean, about 12 m. off the coast of Peru. Lobos de Tierra is the largest and most northerly, being about 5 m. long and 2 m. broad. The islands have large guano deposits.

Lobositz, a tn. in Bohemia, Austria, on the Elbe, 40 m. N.W. of Prague. It is the site of the defeat of the Austrians by Frederick the Great in

1756. Pop. 5076.

Lobsters are acquatic crustaceans of the macrourous or long-tailed type of the order Decapoda. Their long tail distinguishes them clearly from crabs, in which the segments of the tail are short and flattened and expanded laterally. The common L. expanded laterally. The common L. (Homarus vulgaris) frequents rocky coasts, varying slightly according to locality. The general colour is a dull pale reddish-yellow, spotted with bluish-black. The female carries the eggs attached to the false abdominal swimming feet, until they hatch into shrimp-like larvæ, which lead an active existence in the open water, and are much proyed upon. When mature the average weight of the common L. is from 8 to 12 lbs. Norway L. The common spiny L. is of very ancient crigin, and is found on the W. coast of England, often being taken in crab pots. The shell or taken in erab pots. carapace is thickly carapace is thickly covered with spines of various sizes and a large spine occurs over cock and a large

ceptacle of the waters of the Tarim in | but in spite of the prolificacy of the females, the numbers are believed to be decreasing.

Lob-worm, see Lug-worm. Local Debts, see PUBLIC DEBT. Local Government. In this article

L. G. is used as connoting decentralised administrative and judicial functions. As opposed to the central government of a unitary state, i.e. a state in which the sovereignty or supreme governmental powers are vested in a central group or organ exercising a general or supervisory control over all the members of the polity, L. G. denotes the administration of those matters of secondary importance which concern rather the welfare of the inhabitants of a locality than the nation as a whole. What-ever the constitution of a state, a great amount of work must of necessity be delegated to local governing bodies, and as Dr. Odgers points out in his Local Government, 'all constitutional writers regard L. G. as the chief corner-stone of political freedom,' though he submits that it is not easy to say whether free local institutions arise out of a constitu-tional central government carried on by a free people, or whether, conversely, the existence of such institutions instils a love of freedom that necessitates the repressive hand of a strong central organ. Against the latter assumption may be cited the Hindu village communities (see LAND), which, if freedom be taken as synonymous with representative institutions (see Electorate, Constitution), have ever revealed to the European mind a characteristically Oriental immobility of ideas. On the whole it seems more historically accurate to say that in England L. G. really in its essentials preceded central government, if by the latter we mean anything more than a warrior king. There early existed in warrior king. There early existed in England the feudal hierarchy of the water, shire, hundred, and township, each When with its separate most and elective of the governing body. The conqueror did 2 lbs. but make use of this existing Enormous catches of Ls. are made an-machinery even though, by concen-nually from March to August, but the trating all the land in himself and a supply is augmented by imports of the few great barons and earls, he welded large American L. and of the elegant; the nation into a compact kingdom. But whatever its genesis, L. G., as

Professor Sedgwick says, is important, if not indispensable, to the effective working of representative institu-tions. For over-centralisation tends to induce a slackness of control of the spine occurs over each eye. It has citizens generally over the govern-the power of producing a loud noise by rubbing the antenne against the political economy, the absence of a carapace. The size of Ls. is regulated by restrictions as to a minimum at efficiency of the central body itself. Billingsgate and other fish markets, strictly preserved, there will dence that uniformity of essential to what should be an In this process of the labour or functions between government has embodied some central and local executives, it is fresh principle in an Act of Parlia-

to the approval of an central department; ar power would open the d . and preservation of bias, besides leading to the anomaly order, and these functions have not of different regulations in different been formally delegated by any districts, the result of which would central body; they have always been be the allowed elegant of the would would be a control be sphere of what once each control is a control of the co

to be the highest.

According to Redlich, the present structure and functions of local administration are a natural growth from those 18th-century institutions which Gneist called 'self-government 'and considered to be the highwater mark of English constitutional progress. But it is their one pre-Reform L. G. owes but little to the pre-Reform progress. But it is clear that English Bill days of rotten boroughs and close municipal corporations. Again, the influence of social democratic ideas upon government generally, which is one source of L. G., is not to be traced to any one period of the assertion of popular liberties. English L. G. of the present day is not markedly different in principle to what it was in the days when the freeholders assembled in the shire moot, assessed themselves to imperial burdens, and declared what the local usages or laws were, when the hundred (q.v.) was answerable for the good order of its inhabitants, and when the free-men of the town moot made their bylaws and the tithing-man kept the men of the town moot made their and look with the state of the bylaws and the tithing man kept the rapid increase of the call the state of the various debt. In 1868 the local expendical governing bodies of to-day are ture of the United Kingdom was to be detected in their Sa and the and of the centrown to £152,000,000;

mony between the central and local throughout history have constantly governing bodies if the latter are a asserted themselves during periods genuine microcosm of the former, of an oligarchic or monarchic tyrcarrying out in detail the principles anny. The later social democratic formulated by the great departments sentiments of the continent have no of state. If this relationship be doubt enlarged the somewhat stiff strictly preserved, there will but those irectly upon

· the central clear that only a limited power of ment. But the functions per se of lation, should local governing bodies vary but little es, and that from those of ancient times. Conts, buildings, venience and economy make it d be subject essential that local bodies shall cortain functions relating to lth, highways, relief of

Local

comprised 'good order and governance.' but they have not altered the essential functions of the local council and magistracy. See JUSTICES OF THE PEACE, COUNTY SESSIONS, COUNTY COUNCIL. DECENTRALISA-TION.

Perhaps the most remarkable feature of modern L. G. is the rapid advance in municipal trading. England is in advance of most other countries in this respect, and it is becoming axiomatic to say that no one yet knows either how far such policy will be carried in the future, and to what extent it may be said to be in accordance with sound canons of political economy. It is so directly antithetical to the doctrine of laissesfaire, and such a complete subversion of the time-worn notion that state functions end with the conservation of internal order and the defence against aggression from without, that many stigmatise it with the name of municipal socialism (and Large trees). and look with there is on the

> both the population value of property have

value of property have increased, the increase in rates and the county sessions present striking features of similarity. The democratisation of English L. G., after the years is unquestionably due from being the product of any one point of time or set of circumstances, is a slowly matured evolution of life which is regarded by such writers is a lowly matured evolution of life which is regarded by such writers that the traditionally strict historical accuracy, as entirely opposed to the liberal teaching of race—ideas and characteristics which

that municipal trading is undesi not only on account of the inciincrease in municipal debt, bu cause pre-existing functions of

cipalities were enough to absorb all their energies, and to add to those functions is to check progress and discovery. Experience, however, shows that municipalities are not embar-rassed by the added duties involved in ---

ra! an ele tic

in brickmaking and tailoring. Moreover, when all due allowance has been made for political rhetoric, there is but little doubt that the London tramways, e.g. whether worked by the council or leased to companies for working, are worked at a profit, albeit a small one. It is also objected that municipal trading will involve municipalities in labour disputes. In this connection it is to be observed that the Local Government Board recently issued a circular to local authorities recommending ' fair wages ' clauses in civic contracts, and in practice this has been interpreted to mean 'trade union 'rates. Major Darwin (Municipal Trade) urges as a

on the sphere hitherto priate to private enter ger of corruption. recent years seem in a manner to bear than municipal borough councils) into out this fear; but those prosecutions appear to have checked any recurrence of the evil, and in any event powers, e.g. the powers of justices as the vigilance of those who su rival candidates is too keen to of any great latitude. Judged b infant life to the distance of the evolution of me

the encroachments of

Liberalism (q.v.), the whole question is trict council; it abolishes or provides really not so much a matter of profit for the subsequent abolition of the and loss, or the effect of municipal independent highway authorities (old orprivate enterprise, as one of opinion highway boards and rural sanitary or private enterprise, as one of opinion whether or no the interests of civilisa-

to exploit other individuals or

panies for gain. comes clear that the issue is between and overseers as to acquisition of

UNITED KINGDOM.—For purposes of into counties, boroughs, and parishes, most part, though there is occasional ministrative county overlapping; but the districts under

of urban and rural ill-defined, and vhich topographione county are for

purposes of local administration included in the jurisdiction of a local authority situate in some other county, e.g. Holywell is in Bedford-shire, but an order of the Local Government Board includes it in the rural district of Hitchin, Herts. The parish is the unit of these local governmental areas, and, as defined by the Interpretation Act, 1889, is a place for which separate overseers can be appointed or a separate poor rate levied. The ancient parochial authority, the vestry, now exists solely for ecclesiastical purposes, its public functions having been transferred by section 19 of the Local Government Act, 1894, to the parish council and

n 7 gives power to Watching

Act, 1833; the Baths and wash-houses Acts, 1846-82; the Burial Acts, 1882-85; the Public Improvements Act, 1860; and the Public Libraries Act, 1892.

The Local Government Act, 1894, which is mainly concerned with the which is mainly concerned with the substitutes frural dissemble of the substitutes frural dissemble and the substitutes frural dissemble of the substitutes of the substitutes frural dissemble of the substitutes fruit and substitutes Act, 1833; the Baths and Wash-

substitutes 'rural dis-

for the former 'rural thorities '; transforms Prosecutions of 'urban sanitary authorities' (other 'urban district councils,' while in-

memor or no the interests of civilisation are better served by the state becoming its own shopkeeper and district councils; reforms boards of factory owner instead of alle the private individual or come to exploit other individual or come to exploit of the exploit of
's to Thus stated, it be- them the functions of churchwardens

every conceivable form of individual- land under the Allotments Acts; and swery conceivable form of marianary man under the Albumens Aces, and Ism, absolute or modified, and that co-or reative mode of adjusting human relations which for want of a convenience of overlapping bombetter name is called Socialism (q.v.), daries by giving the county councils LOCAL GOVERNMENT IN THE cower, whether proposals for alterative convenience of overlapping bombetter and the convenience of overlapping bombetter tions have been made under the Local L. G. the whole kingdom is divided Government Act, 1888, or not, to alter boundaries of parishes situate and for poor law purposes into unions partly within and partly without a of parishes. The counties correspond rural district or a rural district partly with their geographical areas for the within and partly without an ad-

Parishes are divided by the Local

urban parish is one situate within a borough or urban district, and all parishes which are not urban are Rural parishes include those rural. with parish councils and those with-out. Every parish in a rural sanitary district is a rural parish, and is coextensive with such district; and council direct county the otherwise a separate election of a parish council for such a parish shall not be held until the district is united to some other district or districts; but the rural district council has in addition to its own powers all the powers of a parish council. Neighbouring parishes of any size may be grouped together under a common parish council, but with a separate parish meeting for every parish so grouped; but in practice the grouping provisions of the Act of 1894 apply only to small parishes. No parish may be included with others without the con-sent of its parish meeting. Every rural parish must have a parish meeting, and every rural parish with a population of 300 or more shall have a parish council. But in the case of a parish with 100 or more inhabitants, if the parish meeting resolve to have a parish council, the county council must make an order providing for the establishment of such a council. the case of a parish with less than 100 inhabitants, the county council, on such a resolution, has a discretion in providing for the establishment of a parish council. Where there is no parish council, the meeting does work similar to that of a council, but has less powers. Neither parish council nor parish meeting have any concern with church matters, though they enjoy modified powers over disused burial grounds, and must repair and maintain closed churchyards wherever the expenses of such repair and maintenance are repayable out of the poor rate under the Burial Act, 1855. The vestry still manages church matters, church property, and ecclesias-tical charities, and may still levy church rates. Where there is a parish meeting the parochial electors select a chairman and overseers who cogether are a corporation (q.v.) without a common seal, but who can such third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity third only. Both married and suggested in their corporate capacity the corporate capacity the corporate capacity the capacity the capacity the capacity the capacity the capacity their capacity the capacity

Parish council.—A triennially elected body, consisting of any number of male or female councillors not exceedmale or female councillors not exceed- sideration of out-door relief, it is their ing fifteen nor less than five, as fixed duty to see that that work is done by the county council. It appoints But out-door relief may in deserving overseers of the poor, manages secular cases be given free. The report of the

Government Act, 1894, into (1) urban parochial lands or buildings, provides parishes, and (2) rural parishes. An a parish room or offices, and takes custody of all secular parish muni-ments of title. It can, with the parish meeting's consent, adopt the adoptive or permissive Acts for the provision of baths and washhouses, public libraries, and the making of public improvements, for which purposes it can impose a rate up to 1d. in the pound. It can purchase compulsorily, with the consent of the county council, land for the purpose of allotments, or hire land on the same terms, and if the county council refuse their sanction, can get permission from the Local Government Board (q.v., and see LANDS CLAUSES ACTS and LANDLORD AND TENANT). It can, with the approval of the Local Government Board and county council, raise a loan up to a moiety of the assessable value of the district for the purpose of buying land or buildings or for the purposes of the adoptive Acts or for any permanent works; but the total rate must not exceed 6d. in the pound, and where it exceeds 3d, the parochial electors must sanction such increased rate at the parish meeting. It can provide recreation grounds and public walks; utilise any well, spring, or stream for the welfare of the inhabitants (but not so as to interiere private rights); drain cleanse any stagnant pool, ditch, or pond; give its consent to the closing or divertion of highways (q.v.), and acquire by agreement a right of way. Guardians.—By the Act of 1834 England was divided into unions of parishes primarily for the administraparishes primarily for the administra-tion of the poor law, and guardians of the poor were appointed to take over the duties of the churchwardens in that respect. Guardians in urban dis-tricts hold office for three years, and are elected by the parochial electors of each parish included in the union. In rural districts guardians as such are not elected, the rural district

councillors for any particular area or parish acting in the capacity of guardians. The number of guardians varies, being fixed in each case by the statutory order creating the particu-lar union, subject to alteration by the county council or Local Government Board. In some cases all the guardians retire triennially, in other cases one-third only. Both married and single conduct themselves properly, and where they insist upon work in con-sideration of out-door relief, it is their recent Poor Law Commission strongly houses. The accounts of guardians attacked the whole institution of are audited by district auditors of guardians, but up to the present the Local Government Board, who (1913) there hr

the subject. poor relief is

difficult to say that it is antiquated, for the remedy would seem to lie not in any legislation along poor law lines, but in the continued develop-ment of labour exchanges (q.v.) labour colonies (q.v.) of a penal character for able-bodied persons who will not work, and pensions, or an improved insurance scheme, for persons who through physical or mental infirmity are unable to earn a living. The English poor law system dates from 1601, and in spite of the Act of 1834 and

clature is not It still aims at

houses, with varying degrees of deterrent treatment for idle or unfor-tunate able-bodied paupers; and of infirmaries for the sick and impotent; and at the education and training of pauperchildren. The great problem of guardians or analogous administrators has always been to determine

er is to have o residence: of the Act

lax manner of extending such relief, in defiance of all salutary economic principles, to any idle and vicious vagrant, and the demoralisation and degradation of the poor by the system of farming out the able-bodied paupers among the rate-payers (called the 'roundsmen sys-tem'). The result of this last-mentioned practice was to augment the rates to such an extent as almost to render half the real property in England valueless, and to make it practically impossible for the thrifty poor to live at all by their own exertions. One existing evil is the intricacy of the present Poor Law Settlement and Removal Acts. The poor are ever on the move, and their right to move cannot be questioned; but the moment become chargeable to a new parish they can be sent back to the parish of their last settlement. traordinarily difficult questions arise in individual cases as to where a man's last settlement was, a difficulty enhanced not infrequently by the absence of any reliable evidence as to the pauper's antecedents and places of residence; and the expense of liti-gation as between rival parishes trying to force the pauper on each other may be anything between £50 to £80, or more in a single case. The guardians can, with the consent of the Local

are bound to surcharge for improper

expenditure.

District councils.—1. Rural: Rural district councils are corporate bodies the members of which are chosen by the parochial electors, any of the latter of whom (with the exception of aliens, infants, convicts, adjudicated bankrupts, and paupers) are eligible for office. Candidates for election must be nominated; one-third or the whole retire every three years. The main function of the council is the administration of the Public Health Acts, or Acts of a similar purpose. In this connection their duties consist in taking steps against the spread of infectious disease by enforcing the disinfection of houses and clothing; in regulating the carrying-on of noxious trades, e.g. blood boilers, manure manufacturers, and tallow melters (see also FACTORY AND WORKSHOP ACTS) in forcing any householder whose house is within 100 ft, thereof to connect his drain with the main sewer: and generally in administering the Acts relating to dairies, factories, workshops, laundries, canal boats, cremation, alkali works, and brine pumping. (As to their powers under the Housing of the Working Classes Acts, see HOUSING OF THE WORKING CLASSES.) They have extensive powers for supplying water within their districts, and may compulsorily buy out existing water companies, and must provide and maintain sewers. Since the passing of the Housing Act of 1909, councils must appoint their own medical officer of health, instead of as heretofore making arrangements for utilising the services of the county council officer. For their powers and duties in regard to highways, see under HIGHWAYS. They have supervisory powers over They have supervisory powers over light railways; protect roadside wastes and rights of common: purchase land by agreement for allotments on the representation of the parish council; and proceed against persons or bodies for pollution of the parish council; and proceed against persons or bodies for pollution of the factories or mines, only rivers (if by factories or mines, only with the consent of the Local Govern-ment Board). They may make bylaws relative to the maintenance of public health, new street construc-tion, erection of buildings, and re-moval of nuisances (as to relaxation of existing bylaws for the purpose of housing schemes, see Housing of THE Working Classis); and all bylaws require to be duly advertised, and sanctioned either by the Local Gov-Government Board, borrow money erunnent Board, or some other approfor purposes connected with pauper priate confirming authority. The lunntic asylums, echools, and work-council may levy a private improve-

other purposes, it issues precepts to the different overseers of the constituent parishes who themselves get l the money through their collectors. It may borrow for various purposes with the sanction of the Local Government Board, on the security of the rates. The expenses are divided into 'general' and 'special.' General expenses are payable out of the common fund formed by the poor rate of all the contributory parishes in the district, and include, e.g., the ex-penses of the establishment and offices of the council. Special expenses are those that constitute a separate charge on each contributory place, e.g. the expenses of the con-struction of sewers in any such con-

tributory place or parish. Urban councils.-The qualification for an urban district councillor, the term of office, and formalities of election are practically the same as for a rural district councillor; and the council possesses all the function of a rural district council (with the exception of the duties of guardians), to-gether with other important powers and duties, especially those relating to education. They have wide powers over the district highways (q.v.), and may construct and re-name streets, and make building regulations. They can buy out local gas companies, establish and manage technical and art schools, museums, libraries, and gymnasia. They may administer nonecclesiastical charities with the sanction of the Local Government Board: provide and regulate markets and fairs; construct cemeteries or cremateria (see CREMATION); provide pleasure boats; obtain a provisional order authorising them to construct light railways; and in one or two cases they have obtained special parlia-mentary permission to assist in the maintenance of a canal, and run omnibuses. They may levy general district rates, and in the case of small tenancies, rate the owner instead of the occupier. The most self-centred and compact unit for local governmental and, indeed, generally civic life, is the English borough with municipal corporation (see also BOROUGH, and for qualification of electors, see BURGESS). There are some seventy-three towns, each of which by virtue of having a populawhich by writte or naving a popular-tion of 50,000, or upwards, or being an ancient L. G. 'county,' is called a county borough. Their councils are vested with the powers of county councils (q.v.), and they are in the proud position of being, to all intents and purposes, independent of the administrative counties to which they are situated, while the control of the mission; those not so favoured, are

ment rate, but in the case of rates for Local Government Board is conspicuous rather for its latent possibilities than its active London is on a special footing. It is divided into the City of London, the authority for which is the unreformed corporation of common council, and some twenty-eight metro-politan boroughs, including the City of Westminster, which are the creation of the London Government Act, 1899, and are governed by borough councils. The entire area constitutes the administrative county of London, the confrolling authority of which is the London County Council. As to the manner of forming boroughs, see under BOROUGHS and CORPORATIONS. Many boroughs are justly proud of an exalted historic dignity, and can look back on an unbroken corporate life of over a thousand years. Others, how-ever, have but recently acquired that character by petitions referred to a committee of the Privy Council, who generally hold a local inquiry into the matter, after which, according to their report, the petition for incorporation is either sanctioned or refused. If the former, the new borough is divided into wards, with a fixed number of councillors for each ward. The costs of unsuccessful applications have to be borne by the petitioners, and this fact is generally a salutary deterrent to over-ambition, and not too wealthy If the aspirants to civic honour. petition succeeds, the costs are borne by the borough fund. As a rule, the Privy Council do not recommend the issue of a charter to a town the population of which is less than 20,000. The mayor of a borough is elected

by the council, and is bound to accept office under a penalty of £100 in the The term of office event of refusal. for councillors is one year. One-third of the aldermen retire annually, their term of office being three years. The chief permanent officials are the town clerk and borough treasurer. Some boroughs have their own police force, when they must appoint a watch committee and a borough constable. while, for others, the police authority is that of the county. Again, many boroughs possess a quarter sessions court (see COUNTY SESSIONS), the advantage in such cases being that the bench is presided over by a trained lawyer carefully selected by the Home Secretary, instead of a bench of lay-men. If the borough has a separate commission of the peace, the mayor, who is entitled to the courtesy title of Worshipful,' is the chairman of the borough justices, and continues to be a justice for the year following his

year of office. Nearly all boroughs of

any importance have a separate com-

have a stipendiary boroughs also

on the advice Stipendiary Metropolitan the city

London: they may also be appointed for any urban district with a popula-tion of 25,000. The quarter sessions of London county are presided over by a chairman or deputy chairman, whose salaries are paid by the county council, which latter body is responsible for the expenses of prosecution in cases of felony; in county boroughs the town council is liable for such expenses. The council of a borough having its own quarter sessions, which is either a county borough, or re-ceived its grant of quarter sessions prior to the Local Government Act of or to the Local Government Act of 1888, must appoint a coroner. In other districts, including the county of London, inquests are held by the coroners appointed by the county council. Small boroughs, with less than 10,000 inhabitants, must keep their borough sessions and magis-trates courts if they possess such courts, and also contribute to the court of quarter sessions for the county. Such boroughs, though they are controlled by the county as to their asylums, reformatories, and in-dustrial schools, and cannot themselves deal with gas, animal epidemics, locomotives on the however, administer affairs at their own

additional powers in regard to explosives, fish conservation, incbriates, schools, stamps, industrial asylums, motor cars, weights and measures, and the Riot Damages Act. They also enjoy the privilege of making bylaws for the good rule and government of the borough, and for the suppression of nuisances not already punishable summarily by yirtue of any Act in force within the borough; though all such bylaws must be approved by the Home Office. The observance of these bylaws can be enforced by a fine not exceeding £5, but not before they have been publicly promulgated for forty days in the manner prescribed by statute. For the history, constitution, powers, and duties of the county councils, see under that title.

It remains to deal with education.

under the county justices appointed Under the Education Act, 1902, the by the Lord Chancellor. Some local education authorities were county councils and borough councils. and in districts of over 20,000 population the urban district councils. Under that Act the local education authority was empowered to promote higher as well as elementary education. seems that the local authority is bound to consider the needs of their district in regard to higher and technical education, and to promote the co-ordination of all forms of education. In taking such steps as seem to them desirable to that end, they must consult the board of education, but apparently they are at liberty, after such consultation, to abandon any arrangements they may have made. The Act also enabled the education authority to establish education committees, constituted in accordance with a scheme made by the council, and approved by the Board of Education. By the Provision of Meals Act, 1906, the education authority may supply meals to school children at parents' expense, if the latter are able to bear the cost, and if not, at the public expense; and a rate of 3d. in the pound may be levied to meet the cost. All children, male or female, above five and under four-teen, are bound to attend school (see also CHILDREN ACT, 1908). The local authority may provide public convoyances to take children to and from weights and measures, nor control school, and arrange for medical inof children, and provide play-Under the Act of 1901,

affairs at their own
raily speaking, boro
all the powers and are subject to all
the duties of an urban district council,
but over and above these, they have
such instruction if his parents object. Scottish local administration.

The Scots local governmental law, The Scots local governmental law, like the English, is almost wholly statutory, and the main organs of administration are almost identical. The law itself is unsystematic and unsymmetrical, many of the local authorities have been created ad hoc to exercise particular functions; while in many cases new or additional in many cases, new or additional powers of local administration have been vested in the existing authorities. Scotland is divided into parishes for purposes of poor law relief, and into burghs and counties for all other purposes of L. G. The four principal local administrative bodies are the town councils, county and parish councils, and the school boards. The old ecclesiastical parish remains the only area for poor relief and education; but for the maintenance of order, public health, and the upkeep of roads the administrative area is either the burgh or the county. As The school boards created by Mr. order, public health, and the upkeep Forster's Elementary Education Act of roads the administrative area is of 1870 have given place to the come either the burgh or the county. As mittees of town and district councils. In England, there is a tendency to

under general Police Acts. There is also the same evil of overlapping areas, for frequently the municipal, parliamentary, and police areas are not so extensive. The Local Govern-ment (Scotland) Act, 1894, like the English Act, readjusted the boundaries and relations of the various existing local bodies, and created new local bodies, and a new central authority, the parish council super-seding the parochial board, and the Local Government Board (Scotland), the old Board of Supervision. In 'mixed' parishes (partly urban and partly rural), a landward committee is appointed, composed of parish councillors elected for the rural wards. The urban parish councils' functions are practically confined to the administration of the poor law, though ministration of the poor law, though all parish councils administer parish trusts, and where the parish is not a royal or parliamentary burgh (q.v.) appoints the registrar of births, deaths, and marriages, and repairs the burial grounds in other than parliamentary burghs. They also parlamentary burghs. They also have powers under the Vaccination Acts. But rural parish councils and landward committees exercise many of the functions of a town council: for example, they can acquire land for buildings, maintain rights of way, and put in force the Small Holdings and Housing Acts, besides adminis-tering the Public Health Acts.

The functions of the town councils of the burghs are to be found in the Burgh Police Acts, 1892-1903, the term 'police' being used almost as a synonym for public health. There are some 200 burghs, and their popula-tions vary from a few hundreds to 50,000 and upwards. But, generally speaking, only burghs of over 20,000 inhabitants can appoint their own police force; in other cases the county council, as in England, is the police authority. The chief duties of town councils are to light public streets and places; maintain, cleanse, and generally control public streets and footways: regulate the erection of new buildings, whether dwelling-houses, churches, theatres, hotels, schools, factories, or other industrial build-ings: provide for the sewerage and drainage of the burgh; provide the water supply (there being no water companies in Scotland); and generally exercise statutory powers and duties under the Public Health (Scotland) Act, 1897, the Burgh Sewerage, etc. Act, 1901, and other Acts in re-

increase the unit of area by grouping, enjoy wide power under the Rivers or by extension of burgh boundaries Pollution Prevention, the Public Parks, Public Libraries, Factory and Workshop, Shops Regulation, Diseases of Animals, and Sale of Food and Drugs Acts. They are authorised to assess the burgh up to 3d. in the pound for the general improvement rate, for the burgh general assessment up to 2s. in the pound (upon occupiers only); and up to 4s. in the pound for the water and sewer assessment. They may also make assessments under the Public Health Acts, under similar limita-tions to those obtaining in England.

The county area for L. G. purposes is, generally speaking, the geographical county, excluding the royal and parliamentary burghs. Some smaller burghs and police burghs are, how-ever, included in their counties for certain purposes and autonomous for others. Scots county councils hold three statutory general meetings annually—in May, October, and De-cember—but generally all the powers except that of raising money are delegated to committees. The functions of the county councils are generally derived from the Local Government Acts of 1889 (under which the councils took over the administrative duties of the justices of the peace, and superseded the old Commissioners of Supply for all purposes except the management of the county police force and the control capital expenditure, and borrowing), 1894 (enabling county councils to make orders for purchasing land, adjust or define the boundaries of parish wards, and entertain representations by parish councils as to leasing land for allot-ments, and as to lighting, scavenging streets, and maintaining baths and wash-houses), and 1898. The Act of 1898 empowers the council to provide county buildings and dwellings, and borrow money for such purposes; acquire land for the purposes of any of the powers and duties conferred upon them; provide fire engines; and regulate piers and ferries; license hackney carriages; take over by agreement existing private hospitals or sanatoria; enter into joint agreements with other county councils for the improvement or maintenance of highways or bridges; and review the de-cisions of the road boards. Under the Public Health Acts the council may create county areas for the purposes of water supply, drainage, cleansing, and other matters, and impose, therefore, a special rate. Through the joint standing committees the county councils exercise powers over the police analogous to those of town councils and burghs which maintain gard to nuisances, unsound food, police analogous to those of town common lodging-houses, infectious diseases, and other matters concerned their own police force. The council with the public health. They also appoints a county road board to control highways under its authority, in supplying technical or manual inbut the detail of local maintenance is struction. They bear half the cost of delegated to district committees. The council's powers over roads extends only over country roads, and the streets of some of the smaller burghs. The councils also exercise such powers under the Public Health Acts as were prior to 1889 exercised by the old parochical boards. In most other respects their powers are assimilated to those of independent town councils, and they may make a general assessment for public health purposes up to 1s. in the pound, and levy a general purposes rate for any object not

covered by any special rating statute. School boards under the Education Act, 1872, consist of triennially elec-Act, 1812, consist of treinmany elec-ted members up to any number not less than five fixed by the Scottish Education Department. These boards are concerned with nothing outside education. They enjoy compulsory powers for the provision of all necessary school premises, and may provide for compulsory continuation classes for pupils between fourteen and seventeen years of age. Industrial and reformatory schools are not under local governing bodies. There are in addition to all the above local administrative bodies, lunacy district boards to supervise all establishments for the reception of lunatics, and fishery district committees to requlate sea fisheries. See Erskine's Principles of the Law of Scotland, 1911; and Bell's Principles of the Law of Scotland (10th ed.).

In Ireland the hierarchy of local governing bodies, the distribution of powers and duties among them,

and the code by which matters affecting public health are regulated, closely approximate in all

L. G. law of, nces Removal Acts all apply to Ireland, and the general codifying Public Health Act for Ireland of 1878. with subsequent amendments, com-prises practically all the laws relating to public health in Ireland. County councils for Ireland were not estab-lished till the passing of the Local Government (Ireland) Act, 1898. By this Act all the administrative and financial business of the grand jury at presentment sessions was transadministering of the Diseases of Casson and Whiteley, Education Animals Act, 1894, and the Destructive Insects Act, 1877, were also bury, Municipal Trade; Avetransferred to the county council, 1907.

They have, in addition, power to be bury be be be be bury, Municipal and National Tradition, 1907.

Local Government Board. In former supply or aid other local authorities years this department was known as

maintaining main roads, and may declare new roads to be main roads. They provide and manage lunatic asylums, appoint coroners, manage county infirmaries, make such bylaws as may be made by borough councils for the maintenance of order. and have power to acquire land for various purposes. Dublin, Belfast, Cork, Limerick, Londonderry, and Waterford are constituted by the Act administrative counties called county boroughs, and their councils are vested with practically all the powers and entrusted with all the duties of a county council, the principal exceptions relating to main roads and coroners. The sanitary authorities for all places other than the six county boroughs and the five boroughs of Clonmel, Drogheda, Kilkenny, Sligo, and Wexford were, as in England, converted into urban and rural district councils. Town or township commissioners of towns and townships under local Acts are now therefore styled district councils. Ireland also has its boards of guardians for the administration of the poor law. The district councils have transferred powers analogous to those of borough councils. The making, levying, and collecting of the poor rate is the busi-ness of the district councils and not of the guardians, and many other important functions of the latter have been transferred to the councils. Generally speaking, the district councils, as in England, are the authority for the administration of the Public Health Acts, so far as their districts are concerned. Towns with a population exceeding 1500, but which are not urban sanitary districts, may be constituted urban sanitary districts by order of the Local Govern-There are ment Board for Ireland. no parish meetings or parish councils like those of England, and the term ' parish ' is unknown to the L. G. law of Ireland. Places which are too small to be themselves sanitary districts are included in larger areas (see Vanston's Local Government).

councils for Ireiand were not estab-lished till the passing of the Local Government (Ireland) Act, 1898. By Health Acts, 1908; Jenkin, Local this Act all the administrative and Government Act, 1894; Macmorran financial business of the grand jury at presentment sessions was trans-ferred to the county councils. The duties of the guardians as to levying Hirst, Local Government; Redlich and and collecting the poor rate outside 1903; Webb, English Local Govern-urban county districts, and as to the ment, 1906; Cornish, District Councils; administrator of the Diseases of Casson and Whiteley Education

jurisdiction such wide supervisory powers in local government as almost to justify the aphorism that England is ruled by an order of the Local Government Board.' Nominally the L. G. B. consists of a president and various ex officio members, viz. the Lord President of the Council, all the chief Secretaries of State, the Chancellor of the Exchequer, and the Lord Privy Seal. But in practice this Board never meets, and the president, who changes with the ministry, and is almost always in the cabinet, exercises, subject to the control of parliament, all the powers of the department. He has a parliamentary assistant called the Parliamentary Secretary, who also goes out with the ministry, and is also assisted by a permanent secretary, various other secretaries and assistant secretaries, besides a large body of district auditors, clerks, messengers, and such other officers as the president, with the sanction of the Treasury, deems The supervisory powers necessary. The supervisory powers of the L. G. B. may be roughly divided into three classes, poor law, public health, and local finance (see also Local Loans). The board has strong disciplinary powers over poor law guardians, and supervises the administration of the Baths and Wash-houses Acts, the Acts for the Housing of the Working Classes (see Housing of Working Classes) outside the administrative county of London (the London County Council is the controlling authority for hous-ing matters in London), the Motor Car, Alkali, Vaccination, Canal Boats, and Metropolitan Water Acts. The Board was also authorised to see to the interests of unemployed workmen in accordance with the Unemployed Workmen Act, 1905, but its powers in this respect have become for all practical purposes merged in the control-ling authority of the Board of Trade over the labour exchanges (q.v.). Board also inspects pauper schools and lunatic asylums, audits accounts of local authorities through its district auditors, holds local inquiries as to matters relating to local government (e.g. where a sewage or a housing or town-planning scheme is proposed for any particular district), inspects and Where a local authority duties with respect to the of food, the L. G. B. h.

appoint an officer to execute the provisions of the Sale of Food and Drugs however, the justices are empowered Act, 1899, at the expense of the local; to consider the needs of the district, authority. The Board certifies the for it has long ago been decided (1870) suitability of schools provided by that they might refuse a new licence members of various religious denomi-

the Poor Law Board, but it has long nations and philanthropic societies since drawn within the ambit of its for pauper children under the control of guardians. It may order any two or more local councils to act together for the prevention of epidemic diseases, and under the Public Health Act may consent to the provision by councils of temporary supplies of medicine and medical assistance for the poorer inhabitants of a district; but its powers in this latter respect since the passing of the National In-surance Act have become less important. If a local council neglects to abate a nuisance, the Board may authorise the police to take action, or obtain a mandamus to compel the council to move in the matter or appoint some person to effect the removal at the expense of the council. One of the most important functions of the board is to sanction local loans, especially in regard to the provision of public baths, libraries, sanitary conveniences, burial grounds, and housing accommodation. The accounts of all urban and rural districts, a few boroughs dealt with by local Acts, and all boroughs, so far as income and expenditure on education is concerned, are audited by the district auditors of the L. G. B. A rule, provisional or final order, or other regulation of the Board is valid if made under the official seal of the Board and signed by the president, or one of the ex officio members, and countersigned by a secretary or assistant secretary (see also LOCAL GOVERNMENT). There are also separate local government boards for Scotland and Ireland.

Local Marine Board, see MERCHANT

SHIPPING.

Local Option, or Local Veto, is the phrase that has become current in political circles to denote the power extended in some countries to the electorate of specified districts to determine for themselves whether liquor licences shall be allowed to be granted or not. This privilege exists in certain of the states in America and in Australia (see under LICENCES AND LICENSING ACTS), and is generally known as local prohibition. The only power in any way analogous to L. O. in England is that of the justices at Brewster sessions to refuse to grant or renew licences to obtain liquor licences. But the power or discretion limited one, the justices to grant renewals of old

ie premises are structurand the applicant is a

too many alchouses in the district. states either have a limited kind of But this power of refusal for 'redun-dancy' is far less drastic than a popular veto. The one determined popular veto. The one determined effort made to introduce such a system in England was in 1895, when Sir William Harcourt (then Chanduced) oduced

(Local Mr. :0 ur Own

was to convert practically all the publicans of the country into Tories, while many strong Liberal politicians deemed the proposal premature and undesirable. At that time it seems the general opinion was that the drink evil was steadily abating, and that with an improved national system of educations of the statement of the statem tion, restrictive legislation in licensing would prove unnecessary.

The fundamental principle of L. O is popular control of the grant of licences. It goes beyond mere re-form of the Licensing Acts which impose restrictions from without, for it gives the people direct power to reform themselves. It is in Sir William Harcourt's words an 'appeal direct to the conscience of the people.' The idea underlying the Bill of 1895 was that if in a certain parish two-thirds of the ratepayers voted for the prohibition of the granting of licences, the votes should operate against the

granting of all rotatil licences.

The principle of L. O. obtains in Sweden and Norway, but it is a moot point whether the undoubted reforms in those countries are to be traced to that system or to the co-existing 'Gothenburg' or company system. Under this system (called Bolag in Sweden, and Samlag in Norway), the municipal authority is empowered to limit the number of licences, and to sell them to a company formed ad hoc. This system applies exclusively to spirits, which, however, have always been the national drink. By 1906 about 100 towns in Sweden and 30 in Norway had adopted the system. L. O., how-over, was readily embraced in rural districts in Sweden, where the bulk of the people live, and it has certainly produced good good faculty. produced good results. Generally worse in its

> . wal life, and ern opinion

would be in favour rather of schemes for municipalising and regulating the liquor traffic than for its total pro-hibition.

introduced into Canada by the Scott land Revenue. The proceeds of the Act,' and has been related applied local fexation licences consist of the In Australia only ' nectalizers' spirits, beer, wine adopted L. O., and

has not applied it,

veto as to new licences, or a L. O. to

reduce existing licences.
In Scotland L. O. as a legislative proposal is making headway. The Temperance (Scotland) Act received the Royal Assent on Aug. 15, 1913, as the result of a compromise be-tween the two Houses of Parliament. Under its provisions electors in moderate-sized districts are to be empowered to decide on the number of licences in their locality; and a requisition for a poll must be signed by at least 10 per cent. of the electors. A resolution to limit licences must be passed by a resolution of 30 per cent. of the electors, while a majority of three-fifths of the people can resolve to have no licences at all. But no poll is to take place till 1917, nor any house closed till May 1918. ol. 32), 1895;

Temperance Denmark.

Local Rank, or Temporary Rank, is sometimes conferred upon an officers to enable him to command officers senior to him in a certain locality. only holds good within the 'command' or country in which it has effect, but therein it has the same advantages of precedence, command, and pay as ordinary rank. Brigadiergeneral, for instance, is a local or

temporary rank.

Local Taxation Grants. Before 1889 Treasury contributions in aid of local rates were made by direct subventions towards particular services. But by the Local Government Act, 1888 this system was superseded by one of transfer to local purposes of the transfer to focal purposes of the revenue accruing from certain licence duties and probate duty. The moneys were paid, in the first instance, into the Local Taxation Account at the Bank of England prior to its distribution among the county and county borough councils created by that Act (see COUNTY COUNCIL). Nominally these branches of revenue were assigned to the local authorities, but in practice the duties were collected by the state. In 1890 the local taxation account was augmented by a portion of the customs and excise duties, and in 1894 by a grant out of the estate duty in place of the probate duty (as to the abolition of which see under DEATH DUTIES). The amount of the ould be in favour rather of schemes estate duty granted was 11 per cent. of the net value of property chargeable hitton.

The power of local prohibition was traduced into Canada by the Scott land Revenue Act, 1881, as assertanded into Canada by the Scott land Payage.

> cets licences, game dealers licences for beer, spirit,

Local house keepers, dogs, guns, tobacco-nists, carriages, trade carts, locomo-tives, horse dealers, house agents, auctioneers, appraisers, pawnbrokers, male servants, horses and mules, plate dealers, and armorial bearings. The grant of customs and excise duties consisted of surtaxes of 3d. a barrel of 36 gallons (beer) and 6d. a gallon on spirits. Out of these latter duties a fixed sum of £300,000 is appropriated to police superannua-tion, and the residue, known as 'whisky money' since the Education Act, 1902, is compulsorily applied to higher education. To make up the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by reason of the provision in the deficiency created by that Act provided for the payment into the Local Taxation Account of an annual grant of such an amount as should be certified by the Local Government Board to be due. In 1899 the local taxation account was

charged with half the rates payable by owners of tithe rent charge, and that amount is always deducted from the estate duty grant before the latter

is paid into the account.

In 1909 the collection of the duties on local taxation licences was handed over to the county and county borough councils; but with this ex-ception the state did not surrender its control over the revenues assigned by the Act of 1888. In 1910 the grant from the excise and customs duties was fixed at the amount received in 1908-1909 (£941,222 was paid in to the local taxation account in 1909-10, to which a further payment of £200,000 will be made under the Revenue Act, 1911, to bring the total amount up to that collected in the preceding financial year). The grant from the proceeds of the duties on carriages, motors, and liquor licences has been similarly fixed, the amount accruing from the two first-mentioned sources over and above the fixed amount being now allocated to the Road Improvement Fund. The proceeds of the above sources of revenue, or the fixed sums given in substitu-tion were up to 1907 still paid into the local taxation account, the share of

amounts of estate duty and agricultural rates grants were charged on the Consolidated Falls, the to be paid out from that fund. The scheme of allocation among the complicated. The the Consolidated Fund, and directed local authorities each receive (1) the amount of the local taxation licences He served in the Sutlej campaign of

sweets, and wine dealers, refreshment; collected in their respective areas, house keepers, dogs, guns, tobacco- less the commuted or fixed amounts above noticed; (2) out of the estate duty grant a sum proportionate to the grant in aid received prior to the coming into operation of the Local Government Act, 1888; (3) a propor-tionate part of the residue ('whisky money') from the beer and spirit surtaxes. The grant under the Agricultural Rates Act is paid into the local taxation account, and an equal amount is paid out again to the county

> politan and oth

money is then distributed: (a) Among the Boards of Guardians for one half the salaries of officers, drugs, maintenance of pauper lunatics, etc.; (b) among the district councils for half the salaries of medical officers of health and sanitary inspectors; Among the respective police controlling authorities (see under LOCAL GOVERNMENT) for half the cost of pay

and clothing of the police; (d) for higher education (see above).
In 1909-10 the exchequer contributions account of the county and county boroughs showed that £609,418 was paid for higher education, £958,837 to the guardians (outside London); £1,251,138 for police; £931,646 for police; £931,646 for pauper lunatics; £58,734 for poor law medical officers in London: £196.539 for medical officers of health, and £1,690,077 in relief of rates. The grants direct from the exchequer for elementary education were £11,139,688; for higher education, £1,159,114, and for other services £341,759. The local taxation licences yielded £3,749,187; the estate duty grants amounted to £2,504,651; the tithe rent charge grants, £144,039, the balance being

March 1911 the receipts of the spending authorities amounted to £122,953,000 (excluding loans). Ot this £21,073,000 was made up exchequer grants.

Locana, a vil. of Turin, Italy, 25 m. N. of Turin. Pop. 6000.

Locarno, or Luggarus, a town of Ticino, Switzerland, on Lago Maggiore (N.), 10 m. S.W. of Bellinzona, It is situated on the St. Gothard

route. Pop. 3800.

Loc. cit. (Lat. loco cilato), in the place cited or quoted.

Loc. 'Year Property and Cart Press.

Loc! Loch

trator,

1845, and throughout the Crimean War in 1854. Despatched on a special mission to China, he was, together with a small band, treacherously seized by Chinese officials, returning from Tung-chan, and endured terrible imprisonment for three weeks. The bardships he suffered left a mark on him all his life, and in 1861 he quitted army and became private sccretary to Sir George Grey, Secretary of State at the Home Office. From 1863-82 he was governor of the Isle of Man. In 1884 Gladstone sent him to Australia as governor of Victoria, an office he filled for five years. In 1889 he became governor of years. In 1899 he became governor of the Cape and high commissioner in S. Africa; the most striking incident of this part of his career being his mission to Pretoria in 1894. He left Africa in 1895 and returned to England to England, when he was raised to the peerage.

Lochaber, a wild, mountainous dist. of S. Inverness-shire, Scotland, with beautiful glens and moors, near

lochs Linnhe, Loven, and Eil.
Lochee of Gowrie, Edmund Robertson, Baron (1845-1911), a British politician and lawyer, born at Kinnaird, Perthshire. He was called to the bar in 1871, and held the pro-fessorship of Roman law at University College, London, for a number of years. From 1892-95 he was a civil lord of the Admiralty, and under Campbell-Bannerman's administra-tion became secretary to the Ad-miralty in 1905, a post which he re-tained for three years. In 1908 he

was created a peer.

Loches (ancient Leucæ), a tn. in Indre-et-Loire dept., France, on the Indre, 23 m. S.E. of Tours. It has an old 15th-century eastle and fort-It has

ress. Pop. 5000.

Lochgolly, a police bor, of Auchter-derran par., and tn. of S.W. Fifeshire, Scotland, 7 m. N.E. of Dunfermline. It has coal mines, iron works, and

lt has coal mines, iron works, and blast furnaces. Pop. (1911) 9076.

Lochgilphend, or Lochgilp Head, a police bor. of Argyllshire, Scotland, on Loch Gilp, 1½ m. N.N.E. of Ardrishaig. Pop. (1911) 921.

Lochleven, see Leven, Loch.

Lochmaben, a royal and police bor. of Dumfriesshire, Scotland, 8 m. N.E. of Dumfries. In Castle Loch are the Castle, the ruins of Lochmaben

lower to a higher water-level or the by a treatise on Civil Government and

reverse. See CANAL.

Lock, see GUNS.
Locke, John (1632-1704), an English philosopher, born at Wrington, in Somersetshire. L. was at Westminster School from 1646-52, when he entered Christ Church, Oxford. After taking his M.A. in 1658, he became a tutor of Christ Church in Greek and philosophy. He carly showed a dislike for the scholasticism of men like John Owen, the Puritan dean of Christ Church and though inclined towards an Lock, see Guns. and, though inclined towards an ecclesiastical career, became interested in experimental inquiries, and for a time practised medicine in Oxford, though he never took his doctor's degree. During the summer of 1666 he met Lord Ashley, afterwards Earl of Shaftesbury, and later became his confidential secretary, remaining with him for fifteen years.

In 1666 his theories with regard to religious liberty and the relation between Church and State were set forth in an Essay concerning Tolera-tion. In 1670 the famous Essay con-cerning Human Understanding was begun. At a meeting of friends, the conversation turned on the principles of morality and theology, coming to

inted them. that he should paper the 'limits

of human understanding,' so that they might frankly consider what questions the human understanding was able to deal with. Out of this conversation grew the Essay, which was not published till 1690.

While Shaftesbury was in power, L. was appointed Sceretary of the Board of Trade (1672), but on his fall in 1675, L. was deprived of office and of his Oxford studentship, and was obliged to find a retreat abroad. At Montpellier and Paris he devoted his time to study and writing. In 1679, Shaftesbury having been restored to power, he returned to England, and, though he took no part in the political plots of the following rears, he was under suspicion as the friend of that prominent statesman. In 1683 he withdrew to Holland, which was then the refuge of many men who were not allowed freedom of thought in their own country. After the revolution of 1688 he returned to England, and was reruns of Locamaben Castle, the returned to England, and was retraditional birthplace of Robert warded with a commissionership Bruce. Pop. (1911) 1056.

Lock, is used in its original sense of in life, as an author, and won Euroan enclosure or barrier, for a length pean fame. In 1689 his Epistola of water in a river or canal enclosed data to the chamber of the lock gates, the lock-gates, the champion of Liberal and alted with sluices to render theology in Holland, was translated possible the raising of vessels from a into English, and was followed in 1690 lower to a higher water-lovel or the law a treatise on Civil Corresponding and the commissionership. the Essay Concerning Human Under-

The Letter on Toleration politiques et leur influence en Angletere, 1907; Ollion, La philosophie sersy that ensued a Second rd Letter. Meanwhile, his is failing, and in 1691 he his permanent abode at lesses the country seet of Angert Roy (1911) 245. standing. had called forth an Answer from Jonas Proast, and L. contributed to the controversy that ensued a Second and a Third Letter. Meanwhile, his health was failing, and in 1691 he took up his permanent abode at Oates in Essex, the country seat of Sir Francis Masham, In 1693 he pub-lished Thoughts on Education, which were collected from a series of letters he had written from Holland to Edward Clark of Chipley, concerning the education of his son. Two years later he published anonymously the Reasonableness of Christianity, endeavouring to separate the simple and enduring facts of Christianity from the verbiage of dogma. This treatise also evoked a controversy, and L. defended himself in a Vindication and a Second Vindication. During 1696-1700, when he was busy with his duties as a commissioner of trade and plantations, he published answers to his various critics, an Examination of Malebranche's philosophy, additions to and alterations of his Essay, and wrote his Conduct of the Understanding. In 1700 he retired from public office, and during the remaining four years of his life spent much time in meditation and in close study of the Bible. He was buried in the parish church of High Laver, about a mile's distance from Oates.

The object of the Essay is to examine the character of thinking and the extent of our abilities in thought. In his Toleration he urges that there should be no disability attached to should be no disability attached or pre-religious belief. His method of pre-senting his ideas is straightforward and vigorous, but his style is lacking in grace. L. has had a powerful in-fluence on subsequent thinkers, and the works of Addison, Barclay, Hume, and many others owe much to him. The individual's absolute freedom of religious thought, which is taken for granted in modern of Lisadvocacy. Lisworks were first collected in 1714 in three volumes. Scott. As a novelist L. was not the best edition is that of Bishop Law (1777). The Essay, which has been translated into most European languages, has passed through numerous editions, of which the best is probably Professor Campbell Fraser's, with annotations (1894). See 'Eloge (Spain several times, first in 1867, and of Jean le Clerc (Bibliothèque choisic, 1705); Life by Lord King (2nd ed., chief works include; 'Orange Har-1830), and Fox-Bourne (1876); 'vest at Majorca '(1876), 'Alnaschar' is taken for granted in modern bably Professor Campbell Fraser's, with annotations (1894). See 'Eloge' of Jean le Clerc (Bibliothèque choisic, 1705); Life by Lord King (2nd ed., 1830), and Fox-Bourne (1876): 1830),

in Scotland is held there annually in August. Pop. (1911) 2455.
Locker-Lampson, Frederick (1821-95), an English poet. In 1857 he published London Lyrics, a collection of charming light verse of his own composition, upon which his fame mainly rests. He issued many editions of this slim volume (the last appearing two years before his death), and altered and added to the contents. He commited to the contents. He compiled Lyra Eligantiarum (1867), an antho-Lyra Eligantiarum (1867), an anthology of light verse, and Patchwork (1879), a selection of prose passages. My Confidences, an informal autobiography, appeared posthumously (1896), with a preface by his soninaw, Augustine Birrell. L. was a great and discerning collector, and in 1886 printed a catalogue of his famous library at Rowfant.

Lockhart, John Gibson (1794-1854), an author, born at Cambusnethan. He was an early contributor to Blackwood's Magazine (founded 1817). In

was in early contributor to Black-wood's Magazine (founded 1817). In 1818 he met Walter Scott, and two years later married the novelist's eldest daughter, Sophia. He wrote many articles and novels, and in 1825 accepted the editorship of the Quarterly Review, and settled in London. He did not retire from the control of the Quarterly until 1853. In 1828 appeared his biography of Robert Burns, in the following year contributed to Murray's Family Library a History of Napoleon Bonaparte, and in 1832 issued the History of the late in 1832 issued the History of the late War, with Sketches of Nelson, Wellington, and Napoleon. His greatest work was the Memoirs of the Life of Sir Walter Scott (7 vols., 1836-38), and this biography ranks as second only to Boswell's Johnson. Very generated the second of this control of the second of the seco

chief Works include: Orange mar-vest at Majorca '(1876), 'Alnaschar' (1879), 'The Cid and the five Moorish Kings' (1882), 'The Swincherd' (1885), 'A Church Lottery in Spain,' 'Portrait of A. J. Balfour,' 'Cardinal 1830), and Fox-Bourne (1876); vest at Majorca' (1876), 'Ainaschar' Studies by Fowler (English Men of (1879), 'The Cid and the five Moorish Letters Scries, 1880), and Campbell Kings' (1882), 'The Swineherd' Fraser (Philosophical Classics, 1890); (1885), 'A Church Lottery in Spain,' and Leibnitz, Nouveaux Essais, 1765; 'Portrait of A. J. Balfour,' 'Cardinal Cousin, Lectures on Locke, 1829; Beaton' (1880). He painted for Webb, Intellectualism of Locke, 1857; Queen Victoria the 'Jubilec Celebra-Bastide, John Locke; ses théories tion in Westminster Abbey' (1887-89), R.A. in 1878.

Lockhart, Sir William Stephen (1841-1900), 66), and the Abyssinian expedition (1867-68). He won fame also in the Afghan War (1878-80), and the third Burnese War (1886-87). From 1890-95 he commanded the Punjab frontier force, and became commander-inchief in Inthe Tirah

among the
Lock Haven, the cap. of Clinton co.,
Pennsylvania, U.S.A., on the Susquehanna R., 20 m. W.S.W. of Williamsport. Pop. (1910) 7772.
Lock Hospital, a leper hospital,
known as the Lock Lazar Hospital,
was in Southwark as early as 1453.
It was later turned into a hospital for
the treatment of venercal diseases the treatment of venereal diseases, in which sense only the term 'Lock Hospital' is now used.

Lockjaw, sec Tetanus.

Lockport, the co. seat of Niagara co., New York, U.S.A., 22 m. E.N.E. of Buffalo, on the Eric Canal. There are mills and a fine manufactory of indurated fibre ware. Pop. (1910) 17,970.

Locks and Keys. A lock is a fastening which consists of a bolt held by

fastening were by means of knotted thongs or a wooden or metal bar placed The across the inside of a door. modern lock is the product of evolution from such a bar, sliding in staples and entering a hole in the door-post. A curved key, in shape somewhat like a sickle, was used to move such a bar, and examples have been found in many parts of Northern Europe. The earliest locks of all are probably the Chinese, of which some specimens still extant are as secure as any made in Europe up to the 18th century. Some addition of a lever called the Egyptian locks are known to be 4000 tector. regy pann 190ks are known to be 4000 fector.

years old, and locks on the Egyptian and fix plan may be found in many remote places in Europe. The Egyptians Notice is thus given of any attempt made the portion of the hole into which the retaining pegs were in the first below, and the key had pins open the lock, until it has first beneather the process which the received hollow, and the key had pins open the lock, until it has first beneather the process were the process when the process were the process when the process when the process which the process when the process when the process when the process were th upon it corresponding with these pegs. The key was inserted into the end of the bolt. The Romans based their locks on the same principle as the Housing of the Housing of the Lagretians, but the bolt is smaller, and the dropping plus are pressed and the dropping plus are pressed the housing a reward of £200 for downwards by a spring. The key was introduced into a casing, not into the introduced into a casing, not into the unit of the bolt, and the key-lock in the U.S.A., was invented

which is now at Windsor. L. became, hole had a horizontal extension which allowed it to be moved sideways to unlock the door. Another variety of Alexander (1841-1900), a British pressing against a stop kept the bottom army in 1858. L. served in the Indian locked; the key compressed these Mutiny, the Bhutan campaign (1864-66), and the Abyssinian expedition were the forerunners of the modern were the forerunners of the modern were the forerunners of the modern and the state of the modern were the forerunners of the modern and the state of the Roman lock was that in which springs In the locks of this period a pivoted tumbler is used instead of dropping pins. A number of impediments contained in the lock case were from an carly period interposed between the key and the bolt; these are called wards, and the portion of the key which enters the lock is formed so as to escape them. The number and intricacy of the wards among other things distinguish a good lock from a bad one. Both the keys and the locks of the 17th century were in many cases works of a high artistic value. English makers of ornamental keys in the time of Charles II. were quite on a level with the best of the foreign craftsmen, as many specimens of their work were exported. Robert Barron improved the mechanism of locks in 1778, by placing two levers to guard the bolt, instead of one only, as had previously been done; and he also made it necessary for the levers to be lifted up to the right height exactly before the bolt could be turned. The one or more movable parts in a certain Bramah lock of 1784, invented by hards Bramah (1749-1814), marks ext stage in the improvement of A number (generally six) of metal plates called sliders, the notches in which must be brought

into certain positions before the ker could be used, formed the distinguishing feature of the lock. Notches to fit the sliders are cut in the end of the key-barrel. This lock was called by the makers ' the impregnable,' and it was for some time considered impossible to pick. The Chubb lock was patented in 1818, and since then has been many times altered and improved. It is a tumbler lock, and has more tumblers than usual with the addition of a lever called the 'de-

turned the reverse way. Both the Bramah and Chubb locks were Bramah and Chubb locks were thought to be 'unpickable,' until in 1851 Mr. A. C. Hobbs, an American locksmith, succeeded in picking both varieties, carning a reward of £200 for

but the small flat key and the keyway interlock throughout their length owing to their peculiar cross section. When it is necessary to have a series of locks which shall all have their own separate keys, but also one master-key which will open them all, one of two methods may be used for the latter. The wards of each lock may be different so that each key will only fit one lock, whilst the master-key will have the bit filed off and so fit all the locks. This is open to the objection that any of the subordinate keys may be made into a master-key by filing off the right piece. The other method is to make all the levers of each lock alike save one; another 'gating' is cut in the differing levers so that the master-key, which is specially cut, will fit all the locks. In safe deposits, unless a fresh lock were to be fitted every time a safe changed hands, which would be a troublesome and expensive proceeding, some invention by which the key of the outgoing tenant of the safe might be going tenant of the sate might be rendered useless was necessary. Such an invention was patented by R. Newell in 1841, and introduced into Great Britain by A. C. Hobbs in 1851. The Chatwood Safe Company now make an improved form of changeable key locks. Locks in which the in-ternal parts were arranged in their right position by the manipulation of external parts which were marked with letters, numbers, or other device have been common in China from remote antiquity, but the history of their invention unfortunately re-mains obscure. Such locks are, of course, the predecessors of the combination locks which have been brought to such a degree of excel-lence in America. Blocks of metal corresponding to the different letters of the alphabet are introduced into of the alphabet are introduced into the lock, and the person locking the door places these to spell any word or combination of letters he chooses. When the door is once locked no person can open the door without a knowledge of the same word as was used in shutting it, even if he has the Combination locks are also made in which the mere fact of setting the dial, mounted on the spindle which passes through the door to work the wheels, in the right manner opens or closes the door, no key being required. The application of time to locks, so that the period dur-ing which a door remains locked may be exactly predetermined, is a recent invention, and is very suitable for strong-rooms, etc., which can thus be locked during the night. Time locks are worked by a high class chrone-has a right to say anything during meter movement, not liable to get the hearing of a case unless he has

about 1860. It is also a tumbler lock, out of order easily, which drives a disc provided with gating which the bolt can only enter at the time desired. One movement is sufficient to work a time lock, but three or four are usually provided to provide against any breakdowns. When once a time lock has been set, it cannot be opened until the appointed hour by any key whatsoever.

Locle, Le, a tn. in the canton of Neuchatel, Switzerland, 24 m. N. of Neuchâtel. It is the chief centre of the watch-making industry.

12,696. Locomotives, see RAILWAYS and

STEAM-ENGINE.

Locomotor ataxia, in medicine Tabes Dorsalis, a nervous disease, the causes of which are still uncertain, though syphilis is undoubtedly con-cerned. The chief symptoms are the want of co-ordination of the muscular movements, from which the disease gets its name, but the eyes and other special senses are also disturbed. The disease may come on quite gradually and remain in any of its stages, but continued progress leads to paralysis.

Locri, two distinct tribes of ancient Greece; one occupied the district from the N.E. of Parnassus along the coast of the Maliac Gulf, enclosed on the W. by Doris and Phocis, while the other occupied the district S.W. of Parnassus, on the N. shore of the Corinthian Gulf between Phocis and Corintnian Guir between Process and Etolia. The former were divided into the L. Epicnemidi to the N., and the L. Opuntii, from their capital Opus, to the S., and they are mentioned by Homer. The latter, the L. Ozole, do not appear in history until the Peloponnesian War. A colony called L. Epizephyrii, from which tribe is unknown, under the leader, Euanthes. settled in S. Italy, N. of Cape Zephyrium, about 683 B.C. It had a famous code of laws given by Zaleucus in 664 B.C.

Loose (Hungary), see Leutschau. Locus, in mathematics, the line traversed or surface covered by a point limited in its motion by definitive conditions. The L. of a point moving subject to the condition of constant distance from another, but fixed, point is the surface of a sphere: if, on the other hand, it be restricted to motion in one plane only, the L. will be the circumference of a circle. Every curve is the L. of a point constrained in motion and the investigation of the conditions is considered in analytical geometry.

been solicitors acting for one or other of the litigating parties. A counsel who holds a 'watching brief' for parties interested, but not actually on the record as parties to the suit may, like any member of the public, hear the evidence, but having no L. S., he may not speak. (2) In parliamentary practice, a term used in regard to the right of petitioners to be heard against private bills in the House of Comprivate bills in the House of Commons. Questions on the L. S. of the petitioners are heard by the committee (see Committees, Parliamentary) to which the bill is referred. This was the old practice, tollowed in both Houses before 1865, when the Lower House established the Court of Reference. Part the terror the Court of Referees. But the former practice was soon reverted to in offect, for from 1868 to 1903 the official referees on L. S. questions were regularly associated with committees on private bills, to which they were indeed appointed by the Committee of Selection, and they even assisted the committees in considering the bills. But in 1903, when the appointment of referee was finally discontinued, questions of L. S. were henceforth determined as above noted. Erskine May's Parliamentary Sce Practice.

Locust, the orthopterous insect of the family Acridiide, the name Locustide having, by a freak of nomenclature, been given to the fami'

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true Ls. have short antenne, the head has three occili on the forehead, and the female lacks a projecting ovipositor. Perhaps their most remarkable physiological feature is the large apertures in the first segment of the abdomen containing organs which undoubtedly possess organs which undoubtedly possess auditory functions. The chirping is produced by working the hind legs so that the thighs, on which are minute teeth, pass over the wingcases. A number of species are responsible for the terrible ravages which, since agriculture began, have made Ls. perhaps the most feared of all human enemies. The best-known European species are the migratory L. (Pachytylus migratorius) and P. cinerascens, and it may be said that Ls. range from the W. of Europe to China, while the American con-

'briefed' or instructed by from eggs laid by the female in a ors acting for one or other of hole in the ground, are destructive from the first. They are like the parents except that they lack wings, and advantage is taken of this in waging war on the pests. While wingless, they cannot surmount smooth surfaces, and the line of march of the migratory horde is intercepted by canvas screens 4 ft. high. When they try to pass round the obstacle, they fall into deep pits where they rapidly collect, and the pits are covered with earth when nearly full. Elaborate systems of giving warning of the approach of a migratory horde enable full precautions to be taken, and many well-farmed districts claim that this method of destruction has had extraordinary success, though it cannot check the aerial migrations of adults. Swarms in the air have been known to darken the sun at noon. The periodicity of the appearance of migratory Ls. has been the subject of much speculation, it is undoubtedly governed by a shortage of food, com-bined with the rapid increase in their numbers, and some observers divide their visitations in multiples the spread but with οť eleven. systematic agriculture and Mattei persecution of the pests, any definite periodicity grows less likely.
Lodelinsart, at n. of Belgium in the prov. of Hainaut, 14 m. N. of Charlerel, with collieries. Pop. 9000.
Lodes. Metals and metallic ores are

Lodes

usually found in cracks in the rocks of the earth's crust. L. is the miner's term for these veins as distinguished from non-metalliferous veins. The thickness is very variable, from a few inches to hundreds of feet. Veins may traverse every kind of rock may traverse every kind of rock irregularly. They seldom run parallel to the bedding, but more or less vertically, though the branching is very varied and irregular, as also is their persistence and thickness. In contorted strata the veins may run along the bedding planes. There is no proof that the mineral deposits have intruded in a molten state from below; probably in most cases they are deposited from infiltrated solutions obtained from the surrounding strata, or from deeper sources by mineral springs which have dissolved the springs which have alsolved the mineral constituents from igneous rocks. The material often shows aggregated layers due to successive stages of deposit. The richness of a L. is extremely variable, but in general the restrictions recent the article which the portions nearer the surface which probably in search of food, the exposed to exidation by the atmo-insects will eat anything that is sphere or to action of water, have green and, if needs be, will devour waste matters (ganguo) removed, the animal substances, including their heavier minerals remaining collected own young. The larve, which hatch together. They are, further, in the form of oxides and carbonates, and much more easily subject to extraction of the metal than the unoxidised sulphides, arsenides, etc., which are found deeper. Some rocks are so filled by reticulated masses of veins as to render them totally unworkable. The working of L. is very frequently rendered troublesome by the appearance of faults (q.v.), but the same disturbances are useful in giving surface indications of their existence as mineral ores below. Thus dykes, cliffs, and steep valleys due to faults are surface indications of veined rocks. Prospecting for such deposits is a matter of searching for the slightest and often very indirect indications, among which may be mentioned the stones washed down the beds of streams, mineral springs, the presence in soils of disintegrated and chemically transformed products, the growth of plants feeding on such soils. Magnetic iron is indicated by the magnetic needle. See Phillips, Treatise on Ore Deposits (ed. by Prof. Lewis), 1896; Kemp, Ore Deposits of the United States, 1900; Thomas and M'Alister, Geology of Ore Deposit, 1909; and geological works of Livell, Prestwich, Geikie.

Lodestone, see Magnetite.

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Lodge,

English genealogist, born in London. Became successively Lancaster Herald, Norroy King-at-arms, Clarencieus King-at-arms, and in 1832 Knight of

graphy, and Manners in the Reigns of Henry VIII. Edward VI., Mary, Elizabeth, and James I., 1791. His chief work on heraldry was The Genealogy of the existing British Pecrage.

Lodge, Henry Cabot (b. 1850), an American historian, born at Boston, U.S.A. He was called to the bar in 1876, and from 1887-93 was a Republican member of Congress. He was senator in 1893, 1899, and 1905 respectively, and served two terms as a member of the House of Representatives, Massachusetts. He has issued various publications, including Life and Letters of George Cabot, Essays on Anglo-Saxon Land Law, Daniel Webster, George Washington, Hero Tales from American History, History of

Lodge, Sir Oliver Joseph (b. 1851), an English physicist, born at Penkhull, Staffs. In 1881 he was appointed professor of physics at University College, Liverpool, a position he continued to hold till 1900, when he became principal of the new Birmingham University. In 1898 he was Rumford medallist of the Royal Society. He was knighted in 1902, and in the following year became Romanes lecturer at Oxford. He has been president of the Mathematical and Physical Section, British Association (1891), of the Physical Society of London (1899-1900), and of the Society for Psychical Research (1961-His numerous works deal chiefly with electrical science, but he has also made excursions into the fields of spiritualism and psychical research, and has recently turned his attention to the diminishing of London fogs by the forcing of condensation than the property of condensations. tion through strong electric fields. His publ Views of Science, Life and Mauer, Man and the Uni-

by the Mate, mate the Oniverse, The Ether of Space, Parent and Child, Modern Problems, etc.
Lodge, Thomas (c. 1583-1625), an English dramatist and poet, born at West Ham. Entered Lincoln's Inn in 1578, but soon abandoned himself to the lighter aspects of literature. In 1589-91, seeking variety and change of life, L. took part in two sea expeditions against the Spaniards near the Azores and Canary Islands. During the latter expedition he composed his prose tale of Rosalynde, which furnished Shakespeare with the story of As You Like II. He also published about the same time two romances, viz. Roberl, Second Duke of Normandy, and Euphues's Shadow, the Ballaile of the Sences. His volume of noems, entitled Glaucus and Scilla, also appeared in 1589. L. is likewise the author of two second-rate dramas entitled The Wounds of Civil War and A Looking-glass for London and England, and he translated the works of Seneca and Josephus, See his Works, edited by Gosse (4 vols.), 1884.

Lodgers and Lodgings. It is notoriously difficult to define a 'lodger,' though with considerable reservation it may be said that a tenant who has the right of exclusive possession of part of a house, subject to the general dominion over the house itself of the landlord or his agent, is a lodger. The question is important, as the right to vote may depend upon it, as was proved in the case of Kent v. Fittall. For a person who is in separate occupation of part of a house, and in no way under the control of the land-

and must be separately rated before he is qualified to vote. A lodger may have exclusive enjoyment of an apartment let to him if he stipulates for it, but that of itself does not make him separately rateable, unless the landlord has given up the overriding con-trol and dominion. The term most commonly connetes a person who hires rooms and attendance in a house in which the landlord himself resides. But it also means (1) a per-son who contracts with a boardinghouse keeper for food and lodging regardless of exclusive occupation of a separate room; (2) the hirer of part of a house (that part being furnished or unfurnished) who brings his own servants and procures his own attendance, although the landlord resides on the premises; and (3) persons who live in separate tenements in model dwellings, or similar places, where there are a common staircase and a resident servant or porter appointed by the landlord to perform particular services for the tenants. A lodger's rights will ordinarily depend on the the landlord

he is always ids properly

looked after by the landlord, who will be liable for loss or theft occurring through his neglect. Under the

lodger can protect his goods by serving on the superior landlord or his ngent a written declaration stating his ownership, and containing an undertaking to pay any arrears of rent he may himself owe directly to 📬 tổ his

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damages. But he must pay or tender to the superior landlord the amount of his own arrears of rent when they become due, for if he does not, the goods may be distrained on, as, after giving his undertaking, he is regarded as the immediate tenant of the superior landlord. But whatever he pays, to the latter he can deduct from his next newment to his own landlord. his next payment to his own landlord (see also Districts). Any one who lets furnished lodgings which are not reasonably fit for occupation may be sued by the lodger for damages, but woollens, silk, linen, chemicals, beer, ur, boots, and from goods.

lord, is an occupier and not a lodger, | lodgings in that house without having had it disinfected to the satisfaction of a qualified medical practitioner (as testified by the latter's certificate), or makes false statements on letting lodgings in such house, is liable to a penalty not exceeding £20, or to a term of imprisonment. A lodginghouse keeper who knowingly lets lodgings to a prostitute for the pur-poses of her calling cannot recover his rent. Letting lodgings is probably not a breach of a covenant in a lease not to underlet or part with the premises without the consent of the landlord. If a person agrees to take apartments but does not enter into possession, he is not liable for use and occupation, though he may be sued for damages for breach of contract. The measure of damage will of course be the actual loss sustained by the landlord, so that if another person takes the apartments immediately afterwards, there would be no loss. In the absence of stipulation to the conof the door-bell and knocker, the W.C., the footscraper, and, indeed, of everything necessary to reasonable enjoyment of the premises.

Lodi, a tn. and episcopal see in the control of the premises.

prov. of Milan, Piedmont, Italy, on the r. b. of the Adda, 20 m. S.E. of Milan. The cathedral dates from 1158 and the Church of the Incoronata from 1488. There are manufactures of Parmesan cheese, majolica, linen,

and silk. Pop. of com. 28,000. Lodoicea Seychellarum, the sca or double cocoanut, a lofty palm with huge fan-shaped leaves and enormous double cocoanuts which are often found floating on the sea, and were long believed to be of submarine

Lodomeria (Vladimir), the Latin name for the ancient Slav princi-pality of W. Poland. Vladimir the Great, Duke of Kief, took it in 198. became powerful in the 12th century: was subject to Poland from 1340-1772, in which year it became part of Galicia.

Lodz, a tn. of Russian Poland, gov. of Piotrkow, on the Lodka R., 82 m. S.W. of Warsaw. In spite of a heavy death-rate due to the unhealthy air, L. has grown more rapidly than any other town in Europe owing to the immigration of German capitalists. The population, which in 1872 was 50,000, reached 400,000 in 1910, composed of Poles, Germans, and Jews. The chief manufactures are cottons,

> dye-works, distilleries, and agricultural impleufactures.

. ' le name given originally to

and chalk, evidently loosely deposited and since somewhat solidified by its own weight and the action of percolating water. Extensive deposits have been recognised and studied in many regions, notably China, where thousands of square miles are covered to a depth of over a thousand feet, the Black Earth of Russia, and the Mis-eissippi basin. There has been much discussion as to its origin, leading to a general conclusion that it is windborne from desert or steppe land, desiccated lake basins, glacial moraine, and the sediment left by vastly swollen rivers of the glacial epoch. The distribution of L. may be summarised with some approximation to correctness as forming a fringe on the equatorial side of the limit of glaciation and on the great desert and Professor von Richtsteppe lands. hofen studied the great deposit in China, and concluded that it was the wind drifted fine dust from the central deserts of Asia, brought down by the moister air near the coast. Given sufficient rainfall, L. is extremely fertile; it weathers into vertical cliffs and horizontal terraces; excavations in the former provide homes for large numbers in China. It gives colour and name to the Hoang Ho and Yellow Sea.

Loewe, Johann Carl Gottfried (1796-1869), a German musician and composer, born in Löbejtin, near Halle, and studied at Halle. He settled in Stettlin and produced an enormous quantity of compositions. His ballads are particularly expressive and original, and as the composer of Edward and the Erl King (1818) he takes a foremost place among the writers of 'art ballads.' His other compositions include several oractorios, The Destruction of Jerusalem, The Seven Sleepers, and Jean Huss, several operas, as well as overtures, choruses, symphonies, concertos, and lyrical poems. See Bach's The Art Ballad, Loewe and Schubert (1890), and Lives by Bulthaupt (1898) and

Runze (1903).

Lofft, Capell (1751-1824), an English author, born in London. He was called to the bar in 1775, but spent most of his life on his estates near Bury St Edmunds. He was a prolific writer on miscellaneous subjects, a zealous advocate of parliamentary reform and opponent of the American War and the slave trade. Byron ridiculed him in English Bards and Scotch Reviewers as the Miccons of distressed versemen.

Lofoden (or Lofoten) Islands, a large group of islands lying off the N.W.

a loamy deposit occurring in the basins of the Rhine and Danube. It consists mainly of clay with fine sand and chalk, evidently loosely deposited and since somewhat solidified by its own weight and the action of percolating water. Extensive deposits have been recognised and studied in many regions, notably China, where thousands of square miles are covered to a depth of over a thousand feet, the Black Earth of Russia, and the Alissispip basin. There has been much discussion as to its origin, leading to a general conclusion that it is windborne from desert or steppe land, desiccated lake basins, glacial moraine. Coast of Norway, between 67° 30' and 69° 20' N. and 12° and 16° 35' E. On, and 12° and 16° 35' E. On, and 12° and 16° 35' E. On, and the Vestfjord, and is divided into two sections by the Raftsund, the Lofoten Is. proper, lying to the W. and S., and the Vesteraalen Is. to the E. and N. The famous Macliston Heston E. and N. The famous Macliston Heston Hes

Loftus, a par. and tn. of North Riding, Yorkshire, England, 9 m. N.E. of Guisborough. Alum, stone, and iron are found, and there are brickyards and tile works. Pop.

(1911) 8872.

Lofty, Mount, a mountain of S. Australia, and the highest peak of the Lofty Range, situated near Adelaide. Its altitude is 2400 ft.

Log (a word of uncertain origin), in a nautical sense is an apparatus for measuring the speed of a ship. There are two main varieties of L., the common L. and the patent L. The origin of the former is obscure, and no mention of it is found until 1577. There are four parts to a common L., the log-ship or log-chip, the log-reel, the log-line, and the log-glass. The log-ship is a wood quadrant about in thick, of a radius of 5 or 6 in., and having the circumference weighted with lead to keep it upright. There are two holes near the lower angles, through one of which the end of a short piece of thin line is passed, and knotted; the other end of the line is spliced to a hard bone peg, which is inserted in the other hole. The logship hangs square from this span of rope, to which the log-line is secured. The first portion of the line (from 10 to 20 fathoms) is known as the stray line, and should be long enough to take the log-ship out of the ship's wake. A piece of bunting marks the end of the stray line, and from this the line is marked with 'knots' at regular intervals. A nautical mile is assumed to be 6080 ft., and the distance between knots bears the same relation to this distance as the number of seconds in the log-glass bears to an hour. If the glass is a 28 seconds one, the distance is 47 ft. 3 in., if, as is more rarely the case, it is a 30 seconds glass, the distance is 50 ft. 7 in. For speeds over 6 knots a 14 seconds glass is generally used, and the indicated speed doubled. To heave the log, a man holds the log-reel over his head, and an officer throws the log-chip, with the peg in,

officer's hand, and as soon as the glass has run out the progress of the line is stopped, and the distance measured. Various patent logs have been invented, some of which are fixed on the taffrail and the speed read off. The 'Cherub' for low speeds to 18 knots; 'Neptune' for high speeds and rocket logs were invented by Walker. All patent logs are liable to error, the extent of which should be ascertained by shore observation in calm weather.

Logan, a city and county-seat of Cache co., Utah, U.S.A., on the Logan R., 70 m. N. of Salt Lake City. It is the seat of the State Agricultural College, and of the Brigham Young College (1878). It is the centre of a rich agricultural and mining district.

Pop. (1910) 7522.

Logan, John (1748-88), a Scottish poet and divine, born at Soutra, Midlothian. In 1771 he was presented to the charge of S. Leith, and ordained two years later. Some local scandal having arisen in connection with his name he resigned his charge in 1786, retaining part of his salary. He settled in London where he contributed to the English Review. His undisputed works include: View of Ancient History, 1788-93; Essay on the Manners and Governments of Asia 1782; A Review of the Principal Charges against Warren Hastings, 1788, and two volumes of Sermons, 1790-91. His poems, especially the ballad, Braes of Yarrow, are marked by passages of rare beauty, but the charges of plagiarism and of appro-priating the verses of Michael Bruce has led to a large amount of controversy, more especially in connection with the Ode to the Cuckoo. See Anderson's Life of Logan, 1795, and British and Foreign Evangelical Review, 1877 and 1879.

born in Jackson co., Illinois, served as a volunteer in the Mexi-War, graduated in law from Louisville University (1851), and s army and commanded with dis-tinction. At the close of the war he re-entered Congress as a Republican

clear to windward. The log-glass is was the author of The Great Conturned when the bunting reaches the spiracy, 1886, and The Volunteer Soldier of America, 1886. See Life by Dawson.

Logan, Sir William Edmond (1798-1875), a Canadian geologist, born at Montreal. About 1828 he was sent to Swansea to take charge of the accounts of a

pany, and while

geological maps S. Wales. From 1842-71, he was director of the Canadian Geological Survey. He discovered the Stigmaria under-clays and the Eccoon canadense. He was knighted in 1856. His Geology of Canada was published in 1863. See Life by Harrington, 1883.

Loganberry, a cross between the raspberry and the blackberry, originally raised by Judge Logan in California. The fruit resembles the rasp-berry in character, but is larger, darker coloured, and more prolific. Its core remains in the fruit when the stalk is removed, as in the black-berry. Its flavour is sharper and more acid than the raspberry. The cultivaacid than the raspberry. The cultiva-tion of Ls. is rapidly extending; the chief use of the fruit is for bottling and preserving. The plant is hardy

and preserving. The plant is hardy and easily grown. Logan, Mount, in the S.W. corner of the Yukon territory, Canada. The second highest known peak in N. America with an altitude of

19.514 ft.

Logansport, a city of U.S.A., in Cass co., on the Wabash R., 68 m. N.W. of Indianapolis. Limestone is quarried for use in the iron manuf. It is a market for grain, etc., and has abundant water power. Pop. (1910) 19,050.

Logan Stone, The (Cornwall), see

ROCKING STONES.

Logarithms, a series of numbers standing in a certain relation to the series of natural numbers and en-Logan, John Alexander (1826-86), abling many arithmetical processes to an American soldier and politician, be simplified; in particular multipliabling many arithmetical processes to

numbers) denote the number of times 2 is contained as a multiple in the re-entered Congress as a Republican corresponding number below; $\epsilon.\sigma.$ (1866), and was a member of the $16=2\times2\times2\times2$. The relation will United States Senate from 1871-77, now be understood when we say that and again in 1879-86. He was $2^6=64$ may be expressed: the L. of defeated in his candidature for 64 to the base 2 is 6. In other words, the vice-presidency in 1884. He the indices are the L. of the corre-

sponding numbers below for the and log 3 being found, logs 4, 6, 8, 9, selected base 2. The following pro- 12, etc., are easily added, for cesses may now be verified:

 $8 \times 16 = 128$; $\log 8 + \log 16$ $=3+4=7=\log 128$. 8; $\log 64 - \log 8$ = $6 - 3 = 3 = \log 8$. $64 \div 8 =$ $4^3 = 64$; $\log 4 / 3$

 $=2\times3=6=\log 64$. 8; $\log 64 \div 2$

 $=6 \div 2 = 3 = \log 8$.

It is clear that if the system is to be of practical use, the natural series of numbers must be completely represented; in the above case we must know the L. for 3, 5, 6, 9, 10, 11, etc.

The calculation of these is intricate and laborious. The number 2 as a base or radix, however, is not used; our system of natural numbers being a decimal one, 10 is the most convenient base.

John Napier, Baron Merchistoun, was the inventor of L., and published his first work in 1614. Trigonometrical calculations had become unwieldy, and his work was the result of need for simplicity. It has in-creased almost infinitely the range of practical mathematics. Napierian L. were calculated for functions of angles only; Speidall (1619) improved the system and added the L. of natural numbers. They are now known as the natural Napierian or hyperbolic L., and are used in pure mathematics. In 1615 John Briggs commenced the calculation of L. to the base 10. These have been continued, and are used in all practical calculations. In this system the L. of 10 is 1; 100, 2; 1000, 3; and so on, the numbers in between 10 and 100 having logs. 1+ a decimal fraction; between 100 and 1000, 2+ a decimal fraction. The integral part is known as the characteristic, the decimal part as the mantissa. Log 1 is 0. Numas the mantissa. Log 1 is 0. Numbers less than 1 have negative L. Numbers composed of the same succession of digits have the same mantissa, the characteristic mantissa, the characteristic only varying with the position of the decimal point. By a simple device the mantissa for numbers less than unity is kept positive, the characteristic, negative, thus shortening and facilitating reference. tables Napier's base or radix was a mathematical series where 2.7182818 . . etc., was expressed by the letter e. From the Napierian L. the common L. (base 10) can be calculated, by multiplying them by logic or loge10.

 $4=2^{2}$.: $\log 4=2 \log 2$. $8=2^{3}$.: $\log 8=3 \log 2$. $6=3\times 2$.: $\log 6=\log 3+\log 2$. The separate L. need only be calcu-

lated for primi numbers (see ordinary

works on Algebra),
Use of logarithmic tables.—Directions will be found prefixed to books of the tables and in most elementary works on Algebra and trigonometry. The tables mostly used in England are those published by Messrs. W. & R. Chambers, based on Hutton's calculations, and are seven-figure tables. Many four-figure tables are published: these are sufficient for many practical calculations in engineering and mechanical science where figures obtained are at best approximate. An interesting development has been the construction of simple machines for mechanically performing the calculations; the ordinary slide rule, much used by engineers, is divided into logarithmetic division, the sliding performing addition and subtraction. spiral (sec

produced tables, by means of his calculating machine, which are considered to be extremely accurate. Logau, Friedrich Freiherr von (1604-

55), a German poet, born at Nasse-brockut in Silesia. He studied law at Brieg and Frankfurt, and entered the legal service of the Duchy of Liegnitz as chancery councillor. He is chiefly famous as a writer of epigrams. He joined the 'Frucht-bringende Gesell-schaft,' the most important of German literar;

1648. Undi mon von G

ing to no

lection of epigrams, Zweyhundert teutscher Reimsprüche (1638). selection from his Sinngedichte made by Ramler and Lessing in 1759, and a complete edition of his works

by Eitner in 1872.

Log-book, a book into which the contents of the log-board or rough L. contents of the log-board or rough L. are transcribed daily. The columns of the L. make provision for the nature and velocity of the wind, the state of the weather, the observed latitude and longitude, the course, progress, etc. Under the heading Remarks, are entered the employment of the crew the times of reservent of the crew the times of reservent.

ment of the crew, the times of passing

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which is called the modulus and The deek L. is kept by the omeer of = 0.43429448 . . . etc. the watch, is copied into the ship's L. Calculation of logarithms.—Log 2 which is the official L., by the navi563

gating officer in charge, and is then initialed by the officer on watch. In steam vessels, rough and fair engine room registers are kept, giving in-formation as to the state of the engines, etc. All ships in the British Mercantile Marine are compelled to keep an official L. in a form approved by the Board of Trade, unless they are employed only between ports on the coast of Scotland. The mate's L. and the engine-room register are also usually kept, though it is not compulsory so to do.

Loggan, David (1635-93), an engraver and designer, born at Dantzig. He settled in London and published Engravings of the Colleges of Oxford, and later similar engravings of the colleges of Cambridge. At the court of Charles II. he engraved several portraits of the king and of his

Loggia, the Italian name for an arcade composed of galleries and verandahs roofed over, but open to

the air on one side.

Logia (Gk. λογια, oracles). Papias, a writer of the 2nd century, who is said to have been a disciple of St. John, wrote that 'Matthew composed the oracles (λογια) of the Lord in the Hebrew tongue. It has been one of the tasks of modern biblical criticism to find out what these L. were. That they were the Gospel as we at present have it is impossible, for it is certain that our St. Matthew

e Aramaic. they were rmons and bable sug-1 collection

must have been made by the early Christians, who aimed particularly at showing how Jesus fulfilled the Messianic prophecies. It is notable that St. Matthew's Gospel is marked by its insistence on this.

Logio, see Metaphysics.

Logogram, a form of puzzle, of the opera nature of a complicated anagram (q.v.). The unraveller, instead of being Loig (q.v.). The unraveller, instead of being required to form a single new word or sentence out of the old by transposing the letters, has to discover all the words that may be extracted from the whole or any portion of the french painter, born in Dec. 1870.

Loir, Nicolas Pierre (1624-79), a French painter, born in Paris. He letters, and then using their syno- modelled his style on that of Poussin letters, and then using their synonyms. The puzzle consists in the dis-

tion from the Supreme God by which the Godhead was manifested. In time the L. became personified, and in the Jewish Alexandrine school, of which Philo is the greatest representative, the L. is equivalent to the Divine Wisdom. The author of the Fourth Gospel boldly took possession of this mode of expression, and of this mode of expression, and identified the L. with Christ E_{ν} $\delta\rho\chi\tilde{\eta}$ $\delta\lambda\delta\gamma_{05}$. The early process of personification is seen far developed in the Apocryphal Book of Wisdom. which is a product of the Alexandrian

school. Logrono: 1. An inland prov. of Northern Spain, S. of the R. Ebro. The Ebro basin is very fertile, producing cereals, olive-oil, fruit, and the noted red Rioja wines. Iron, silver, lead, copper, and lignite are found. Area 1946 sq. m. Pop. 188,480. 2. (Ancient Lucronius). Cap. of the above, an ancient walled tn. with a twelve-arched bridge across the Ebro dating from 1138. It is on the r. b. of the Ebro, 30 m. S.S.E. of Witario, in the control of the right Vitoria, in the centre of the wine district. Pop. 19,237.

of the Punjab, India. Area 222 sq. m. Pop. 15,229. The capital is Loharu. Pop. 2175. Loharu, a native state in the S.E.

Lohengrin, the hero of an old High German poem of the 13th century. He was the son of Parsifal and one of the knights of the Holy Grail. King Arthur's command he was carried to Mainz in a car drawn by a swan to rescue Elsa, daughter of the Duke of Brabant. He overthrew her enemy, Telramuna, and Elsa. In spite of her promise not to Telramund, and married rew Bible, question him she insisted on def a Messi-manding his origin. Twice he peranic interpretation. Such collections suaded her not to question him, but on her asking a third time he told her and immediately was carried away by the swan-drawn car to return to the Grail. Rucker's edition of the poem (1557) is the best. It is a continuation of Wolfram von Eschen-bach's Parzival. Wagner founded his Lohengrin (1848) on legend.

but without losing individuality. He covering of the hidden words, and was admitted into the Academy of then of the primary word from which Painting in 1663, and executed a they have all been obtained. See number of paintings in the Tulleries, ANAGRAM; also Wheatley's Anagrams as well as numerous portraits and engraines. His best works are: Ste. Logos (Gk. λόγος, word or reason), Thérèse, 'Saint Paul before the proin theology, a term first applied by consul Sergius, 'Painting and Sculpthe Greek philosophers to an emana-ture discovered by Time.'

1. The longest riv. in N.E. of Loir-et-Cher. Loire: France, rises in the Gerbier-de-Jone (dept. Ardèche) at a height of 4500 ft., and flows N. and N.W., S.W., and finally W. for a total distance of 625 m., until it flows into the Bay of Biscay between Paimbœuf and St. Nazaire. Its chief tributaries are the Allier, Cher, Indre, Vienne, Thouet, and Sevre Nantaise on the l. b., and the Arroux and Maine on the r. b. Navigation of the L. is difficult owing to the strinking of the stream in times of drought and the frequent in times or arought and the frequent floods at other times. Dykes have been erected at several places, the most important being the circular dyke at Tours. The Maritime Canal of the L. (9\frac{1}{2} m. long), opened in 1892, enables large ships to ascend to Nantes. The 'lateral canal of the Loire', accompanies the river frace. Loire' accompanies the river from Roanne to Briare and thence pro-2. A dept. of ceeds to the Seine. Central France formed from the old dist. of Forez and parts of Beaujolais and Lyonnais, is bounded on the N. by the dept. of Saône-et-Loire, and S. by Ardèche and Haute-Loire. It is drained in the N. by the Loire and its tributaries, and in the S.E. by the tributaries of the Rhône. The department is largely mountainous, but the plains of Forez and Roanne provide good agricultural and pasture lands. The vine is grown in the valley of the Rhône. The basin of the St. Etienne is one of the richest coal districts of France, and iron and lead are mined in large quantities. The chief manufs. are glass, ribbons, silk, cast steel, hardware, machinery, and cuttery. Cap. St. Etienne. Area 1853 sq. m. Pop. 640,549. Loire, Haute-, see HAUTE-LOIRE.

Loire-Inférieure, a maritime dept. of Western France, formed from part of ancient Brittany and the district of Retz, and lying between the Bay of Biscay on the W. and Maine-et-Loire on the E. The surface is very flat, and is drained by the Loire with its tributaries, the Erdre and the Sèvre, and the Isac, a tributary of the Vilaine.
The refining of the salt from the
marshes between the Vilaine and the Loire is an important industry. Horse and cattle breeding prospers, and cereals, vines, flax, and fruit are culti-vated. There are deposits of tin, lead, and Iron. There are foundries and shipbuilding yards at Nautes and St. Nazaire. The chief manufs. are hemp, linen, paper, sugar, and soap. The capital is Nautes. Area 2694 sq. m. Pop. 669,920.

The Loire valley in the S. of the department, in spite of the frequent floods, is famed for its fertility and vineyards. great part of the surface is covered by forests, but the plateau of Orleans is very fertile. All branches of agriculture form the chief industries. The chief manufs. are bricks and tiles, porcelain, leather, machinery, hosiery, sugar. Cap. Orleans. Area 2629 sq. m. Pop. 364,061.

Fob. 364,001.

Loir-et-Cher, a dept. of Central France, formed from portions of Orléanais and Touraine, and bounded on the N. by Eure-et-Loir, on the S. by Indre. It is drained by the Loir in the N., the Loire in the centre, and the Cher in the S. A large part of the surface is covered by forests, but in the river begins there are rich but in the river basins there are rich agricultural districts, wheat and oats being largely cultivated. There are rich pasture lands, and fruit and vines grow well. Cloth and other woollens. gloves, leather, and glass are manufactured, and there are large distilleries. Cap. Blois. sq. m. Pop. 271,231. Area 2478

Loja, or Loxa, the cap. of a prov. of the same name in the republic of Cinchona bark is ob-Ecuador.

Ecuador. Cinchona bark is obtained in the neighbourhood. Area of prov. 7000 sq. m. Pop. of tn. 10,000; of prov. 67,000.

Loja, a city in the prov. of Granada, Southern Spain, in a beautiful valley traversed by the R. Genil. Salt is found in the neighbourhood, and the provent for realizations. and there are manufs, of woollens, silk, paper, and leather. It was one of the last Moorish strongholds. Pop. 20,000.

Lokeren, a tn. of Belgium in the prov. of E. Flanders, 12 m. N.E. of Ghent. There are manufs. of wool and cotton, also chemicals.

22,000.

Loki, the 'spirit of evil 'in Scandinavian mythology, corresponding with Mephistopheles. Although really of the race of giants, he was always counted among the Asas, and mythology, corresponding was possessed of great physical beauties, and extraordinary cunning with which he deceived and perplexed the other deities. For the story of his jealousy and murder of Balder, see under BALDER.

Lokman, surnamed 'The Wise,' a legendary sovereign of pre-Islamic Arabia, to whom is attributed the construction of the famous dike of Mareb. Legend says that in reward for his virtues he was given the life So, m. Pop. 669,920.

Loiret, a dept. of Central France. formed from the ancient prov. of reputed author of the Falles of Orléanais, with parts of Ile-de-Lokman, is variously described as an France and Berry, and lying S.W. of Abyssinian slave of David's time, Seine-et-Marne, W. of Yonne, and and a cousin of Job, but he is most generally identified with the Balaam, of the Scriptures, the Hebrew bala and the Arabic lakam, both signifying the devourer. The fables, proverbs,

to him are now o be of Chris-

Derenbourg's Fables de Logman le Sage (1850), and The Thousand Nights and a Night (ed. by Lady Burton).

Lokoja, a tn. of Northern Nigeria, Africa, near the junction of the rivers

Niger and Benue. Pop. 10,000. Lollards, The (from Dutch lollard, a mumbler, mutterer, from lollen, to mutter), a name applied at the end of the 14th century to the followers of Wyclif and others who shared his tenets. The movement was, to a large extent, independent of Wyelif. Äll over the country there was discontent with the ecclesiastical and civil Wyclif represents this discontent among the learned, and there is no doubt that his individualistic views were spread far and wide by his poor priests, whose lives and preaching compared favourably with those of the friers. But many had already come to similar conclusions on their own initiative. The L. underwent much persecution, the chief statute against them being the De Herelico Comburendo in 1400, under which many were burnt. Lollardism was many were burnt. Lonardish and forced beneath the surface, but did not die out, even after the death of the Colescelle under Henry V. but remained to give impetus to the Reformation. Many took in hand to reason against Lollardism, but the only successful writer was Bishop Reginald Peccek (q.v.).

Lolos, or Nesus, the Chinese name for an aboriginal tribe which inhabits mountainous country the called Taliang-shan, which lies between the Yangtse-king, and the Chien-chang valley. Their language is monosyllabic, and, although the characters bear a certain general likeness, is quite distinct from Chinese, as are their features and customs. They are mostly under Chinese rule. See A. Hosic, Three Years in Western Chine, 1897, and A. F. Legendre, Les Lelos, 1909.

Lombard, Lambert (1506 - 60), Flemish painter, engraver, and artist. He was also known by the names of Lamprecht Susterman, Suavius, and Schwab.

Schwab.

Lombard, Peter (c. 1100-c. 1160), an Italian theologian, born at Novara in Lombardy. He is often referred to as 'magister Sententiarum' because of his famous Sentences. These are divided into four books, dealing with the Trinity, Creation, Incarnation, and the Sacraments, and were deonce and for all by reference always to the scriptural texts. They became after his death the accepted manual of theology.

Lombardio Architecture, a style developed in the N. of Italy by the Lombards after the Gothic invasion, when Goths and natives had fused into one race. Its rise dates from the time of Charlemagne, and a few monuments remain from the 8th century. But the great architectural period was the 11th and 12th centuries. To the early part of this belongs the church of St. Antonio at Piacenza, dedicated in 1014. A later example is the cathedral of Novara, and later still we may note St. Michele at Pavia. St. America of Avilia in the Avil. brogio at Milan is also Lombardic. L. A. is based primarily on Roman tradition, though in detail it discards the debased forms of the later empire in favour of Byzantine importations. The W. end is generally very poor, and the best view is that of the E. end.

Lombards, see Longobards.
Lombards, The, a class of Italian
merchants, brokers, and bankers who
settled in England from the 13th to the 16th century. It is certain that all did not come from Lombardy, yet it is likely that the enterprise and intelligence they displayed was in large measure due to the fusion of Longobard or Lombard blood with the indigenous Italian. In 1338 Edward III. pledged his jewels to the Lombards in order to raise money for his French wars, and Henry V. did likewise in 1415. In that they were usurers and pawnbrokers they were unpopular like the Jews, who, until their expulsion in 1290, had largely controlled those occupations. Lombards first arrived in England in the reign of Henry III. (1216-72), and were formally banished by Queen Elizabeth. But prior to her reign erchants had already English merchants largely usurped their functions. It is related that Edward II. handed over as much as £56,000 to the Frescobaldi in payment of his father's debts, whilst the wealthy firms of the Peruzzi Bardi-the and Lombards of the day-were actually ruined by Edward III, who was nover able to redeem his pledges. Lombard

Lombardy, a division of Northern Italy, bounded on the N. by the Alps, on the E. by Venetia, on the S. by Emilia, and westward by Pledmont. It includes part or whole of lakes Maggiore, Lugano, Como, Garda, Maggiore, Lugano, Como, Garda, Isco, and Varese, and is drained by the Po, which is a southern frontier, signed to settle doctrinal disputes and the Ticino-a tributary of that

Street in the city of London-often

etro-

river flowing along the western boundary. The highlands are devoted to pastures, the lower slopes to chestnuts, etc., vines, and silk culture, and the fertile plains to multure, and the fertile plains to multure which the statement of the st country, is also the most flourishing silk market in the world, whilst silkweaving is the main industry of Como. Weaving is the maintenance of the Lombardy is divided into the provinces of Bergamo, Brescia, Como, Cremona, Mantua, Milan, Pavia, and Sondria. Area 9297 sq. m. Pop. 4,786,907.

4.786,307.
Lombok, called also Selaparan, an island of the Malay Archipelago, Dutch East Indies, situated eastward of Java between lat. 8° 12′ and 9° 1′ S., and long. 115° 46′ and 116° 40′ E.; it is separated W. from Ball by Lombok Strait, and E. from Sumbawa by the Strait of Alas. The area is 3136 sq. m. Two mountain chains extend along the N and S. coasts, the former along the N. and S. coasts, the former being volcanic. Between the ranges are well-watered fertile plains, where sugar, coffee, maize, indigo, cotton, and tobacco are cultivated. The capital is Mataram, and the chief port Ampanam, situated on the W. coast. Pop. 400,000.

Lombroso, Cesare (1836-1909), a criminologist and professor of forensic medicine; later professor of criminal anthropology at Turin, born at Verona, and died at Turin. In 1862, before holding the above positions, was professor of psychiatry at Pavia, and then director of the Pesaro lunatic asylum. The name of this At. I celebrated Italian anthropologist is mainly associated with theories relative to the responsibility or irresponsibility of criminals and as incidental thereto, with theories as to the physical and psychical charac-teristics that go to form the criminal type. For a general criticism of his theory of the evidence of a criminal theory of the evidence of a criminal type see under Criminal type see under Criminal Cor. In his last years he took up the subject of spiritualism. Chief works: L'Uomo delinquente, 1889; La Pellagra in Italia, 1885: L'Uomo di genio, 1888; La Donna Delinquente, 1893; Delitti vecchi e delitti nuovi, 1902: Nuovi studi sul genio, 1902; After Death—

Stirling and Dumbarton. Its length is 23 m., and it varies in width from 5 m. to \(\frac{1}{2} \) m.; its area is 27 sq. m. It contains thirty islands, of which the largest is Inchmurrin. Mountains and valleys encircle the lake, and from these numerous streams fall to its harks. A convice of pleasures of the largest of the to its banks. A service of pleasure steamers in summer ply upon its waters.

London. The term What? 1909. one way, t Lomond, Loch, the largest lake in by definit Scotland, situated in the counties of most imp (1) The Ći

Lomonosov, Michael Vasilievich (1711-65), a Russian poet and scientist. was the son of a fisherman in Archangel, and having with the aid of a priest, fruitfully employed the tedious Arctic winters in study, journeyed at length to Moscow in a cart laden with frozen fish. There, and afterwards at St. Petersburg and Freiburg, he studied chemistry, physics, and especially mineralogy and mining. He wrote numerous scientific treatises. but his excellent Russian grammar, his poems, which are ever animated with the force of a fine character and a stirring patriotism, and his writings on history and astronomy indicate that his versatile and powerful intel-lect embraced a far wider field than that of his academic pursuits.

Lom-Palanka, a tn. of Bulgaria, and the cap. of the prov. of Lom-Palanka. It is situated on the Danube, and is

It is situated on the Danube, and is one of the chief riverports. Pop. 8000. Lomza, or Lomzha, a prov. of Russian Poland, bounded N. by Prussia, E. by Grodno, S. by Warsaw, and Siedlee, and W. by Plock. It has an area of 4072 sq. m., and is generally flat and marshy. It is watered by the Narev and the Bug. The crops are wheat, oats, rye, barloy, potatoes, flax, etc.; poultry and bee-keeping are important industries, and there are manufactures of leather sugar are manufactures of leather, sugar, tobacco, pottery, wooden ware, etc. The capital is Lomza, an old fortified town on the Narey. Pop. of province 683,600.

Lonato, a walled tn. of Italy, in Lombardy, situated in the prov. of Brescia, and 14 m. E.S.E. therefrom. It is noted in history for a victory gained by Napoleon over the Austrians in 1796. Pop. 7000.

Lonchopteris, a genus of spearshaped fossil ferns which are often found in Patitic neal measures.

found in British coal measures.

Lonchura, a genus of passerine birds, belong to the Fringillidæ, or finch family. There are about twelve species, which range over India and the neighbouring islands. They are characterised by strong, short beaks and plumage varying from grey to bright orange or scarlet.

don of history, occupies only dad acres, scarcely 1 sq. m., in the centre of the huge area which is now popularly known as London. The old walled city has been swamped by the younger suburbs which have grown up all round it. It still lives as an administrative unit, with a

civic constitution which would still

ages. The resident population of the City was 19,657 at the census of 1911. (2) The modern administrative County of London includes the City and the surrounding district of 116; sq. m. (74,816 acres) with a population of 4,522,961 inhabitants. The district is under the local government of the London County Council: and it is the area which, perhaps, most nearly approximates to the ordinary meaning of the term London. (3) But there is a still wider use of the term, the greater London which is practically the Metropolitan Police District together with the City of London, which roughly includes all parishes within 15 m. of Charing Cross, and therefore comprises the county of therefore comprises the county of Middlesox and parts of the counties of Hertfordshire, Essex, Kent, and Surrey. This greater London has an area of 692? sq. m. (443,424 acres), with a population in 1911 of 7,252,963. This area at the present moment contains what are in fact still rural districts; but the growth of the suburbs is rapidly making the smaller London County Council area an illogical definition of the term. (4)There are still other definitions of London: but the above are the main

significations of the word.

Government.—(1) The chief local governing body in the L. area is the London County Council, controlling the first and second of the districts described above. It was created by the Local Government Act, 1888. The Council consists of 118 county councillors, elected (in pairs, except the City of L. which has 4 councillors) in 58 divisions. The elections take place every three years; the electors being the county and parochial electors. There are now about 800,000 electors on the registers. The councillors may elect 19 aldermen for six years; and also a chairman for a term of one year. The enormous powers of the London County Council can only be briefly suggested here. The total assessable value of the area in 1912 was £44,818,697, on which the Council raised in total rates over 27,000,000 for use in its various activities. With other sources, its total receipts in that year amounted to £11,831,879. Over half this amount is spent on education, both elementary and higher. The Council has been been always and higher. has borrowed about £40,000,000 for financially unremunerative services. besides over £12,000,000 for the de-

seem familiar to a man of the middle education and tramway services, are the provision and control of workingclass dwellings, open spaces and busides large grants to the Guardians of the Poor, and extensive public health work. (2) By the London Government Act, 1899, the older vestries and other bodies were abolished in the L. area, and their place was taken by 28 metropolitan boroughs: Battersea, Bermondsey, Bethnal Green, Camberwell. Chelsea, Deptford, Finsbury. Fulham, Greenwich, Hackney, Ham-mersmith. Hampstead, Holborn, mersmith. Kennington, Islington. Lambeth, Lewisham, Paddington, Poplar, St.

Stoke Newingestminster, and ames are given their present administrative importance, they re-

present, also, the most important of the ancient divisions of the area of L., as we shall see later. Each of these boroughs is governed by a council of from 30 to 60 councillors who appoint aldermen up to onesixth of their own number: they also choose a mayor. The councillors are elected by the persons whose names are on the parliamentary and local government registers; and the elections take place every three years. The chief functions of the borough councils are to perform the duties of a public health and high-

libraries, baths, and washhouses, etc. The so-called Municipal Reformers at present hold an overwhelming majority on the borough councils, as a whole, viz. 1002 councillors as against the 360 councillors representing all other parties. (3) Considered as general, the City of L., except for a few London County Council powers, is an isolated self-governing and independent unit of L. Thus it has tits own police, quite independent of the metropolitan police, and its own courts of law. The City of L. is governed by a council which is a survival from mediaval times. With this council is closely bound up a great part of the history of L. the moment we will describe it in its present form. The City is a corporation styled 'th and citizens."

velopment of undertakings which Court of Aldermen consists of 26 will produce revenue. The Council aldermen, each elected for life by the owns about 146 m. out of the total householders of one of the 26 wards 400 m. of tranways within the into which the City has been divided greater L. Its other important, almost throughout history. The functions, besides the provision of primary function of the aldermen is are composed as lonous.

The Common Council is the legislative body of the corporation, and the controller of the finances and pro-perty of the City. The Council does its work in the form of many comnittees appointed for the various parts of the administration, e.g. the Library Committee, the City Lands Committee, the Markets Committee, etc. There are about thirty committees in all. The Court of Common Council is thus the chief aggratism. Council is thus the chief executive and legislative body in the City. It also elects the town clerk, the City Remembrancer, the City coroner and the under-sheriff. (c) The Court of Common Hall, the third of the main court of the Variation of the pair of the court of the Court of Common Hall, the third of the main court of the Variation of the court of the Court of the Court of Common Hall, the third of the main court of the Court courts, is composed of the Lord Mayor, the sheriffs, the aldermen, and the liverymen of the City Companies. The Court of Common Hall only meets twice each year; its main business is to elect the sheriffs and City Chamberlain, and a few other officials; and also to nominate two aldermen, from whom the Court of Addermen chooses one as Lord Mayor. The rateable value of the City is about £5,600,000. The markets of Billingsgate, Leadenhall, Islington (Metropolitan), Smithfield (London Central Markets), etc., are under the control of the City corporation; which derives a yearly income therefrom of almost £260,000, balanced by an expenditure of £230,000. The Smithfield markets are by far the largest of these. The City had a total revenue from rates, rents, markets, etc., of over £1,285,000; with an expendi-ture of about the same amount, mainly used in the maintenance of

to act as justices of the peace for the companies of privileged tradesmen or City. (b) The Court of Common Council consists of the above aldermen; and also 206 common countries and also 206 common countries const. Thomas's Day (Dec. 21). The clectors (see Acts of Paliament, 11; we have seen, form the larger part of Geo. I., c. 18 (1724), and 12 and 13; the Court of Common Hall. The first Vict. c. 94 (1849) are the rated housestwelve of these guilds are termed the holders of the wards, who need not be freemen, or 'citizens' of the City. Grocers, Drapers, Fishmongers, Gold-The Common Council is the legisla-smiths, Skinners. Merchant Taylors. smiths, Skinners, Merchant Taylors, Haberdashers, Salters. Ironmongers, Vintners, and Clothworkers. The majority of these are possessed of valuable estates; thus the Mercers have a corporate income of £48,000 a year, besides administering a trust income of £35,000 a year; grocers have a corporate income of £50,000, and a trust income of £28,000. The total property of all the Livery Companies is said to be about \$15,000,000, producing an income of about \$800,000 a year. The wealthiest of the lesser companies are the Leathersellers, the Carpenters, and the Brewers, though the property of the latter is mainly in the form of trusts. The halls of the companies, in some cases are of great interest, and will be mentioned in the section on topography. Once the chief factor in L., both as trustees and governors, the livery companies have now become close private corporations of come close private corporations of the corporations of the corporation and their that the corporation and their wealth. Their trading rights and duties are mainly nominal, though in company and the Stationers', they are still, to some extent, in active existence.

We have now glanced at the three main local governing bodies in the L. area. There are lesser bodies of various kinds, not only of intrinsic importance, but also worthy of notice from rates, rents, markets, etc., of importance, but also worthy of notice over £1,285,000; with an expenditure of about the same amount, most noteworthy are the following: mainly used in the maintenance of the markets, the police, the reads. Besides the revenue from the markets over the whole area of greater L., mentioned above, the City possesses valuable general estates with a gross valuable general estates with a gross revenue of about £452,000; the balance of expenditure required being raised by rates which amount to about £4570,000 total per year. There is a long list of highly paid officials of odoubtful general public utility. The the central government, of which whole City corporation is a survival the Home Secretary is but one from the middle ages endeavouring member. The total yearly cost in short of the most interesting survivals in about £1,500,000, and is mainly met the City of L. are the livery come by a rate of almost sixpence in the panies, the remains of the medieval system of organising trade and industry under the control of guilds or 1902 to take over and control eight is composed of 66 members, 30 of whom are elected by the borough councils, 14 by the London County Council, and the rest by the other local governing bodies of the area. The yearly receipts of the Board amount to almost £3,000,000, but the present expenditure is slightly greater. The previous shareholders creater. The previous shareholders were mainly paid by the issue of 3 per cent. stock. The population supplied is over 7,000,000 persons, and the area supplied is about 537 sq. m., which to a large extent coincides with the area of greater L. as defined above. The water supplied amounts to about 230,000,000 gallons a day, which is drawn from the rivers Thames and Lea and the New River, and the rest from springs and wells. The charges are uniform over the whole area; 5 per cent. on the rateable value of the house for domestic purposes. There is in domestic purposes. There is in storage enough water to last for about forty days. (3) The Port of London Authority is another attempt to place private trading under popular control. It was established by the Port of London Act, 1908, to take Port of London Act, 1900, to conver the chief L. docks (i.e. the L. and India docks, the Surrey Commercial docks, and the Millwall docks, the Surrey Commercial docks, and the Millwall docks, the price of which were bought at the price of £22,800,000. The authority has planned new docks which are esti-mated to cost £14,000,000. The ex-penses are met by the present revenue of almost £3,000,000 from tonnage dues, port rates, river tolls, etc. It was estimated that there was a net income of £800,000 from the above three dock companies bought under the Act. The power to levy port rates on goods was first given by the Act, whereas the power to collect dock rates on goods already existed in the time of the private dock companies. The authority is constituted follows: Eighteen membersare elected by the traders using the docks, one by the Admiralty, four by the London County Council, two by the Board of Trade, two by the City of L., and one by Trinity House. These members are elected for a term of three years. Their authority extends from Teddington to the Isle of Sheppy, on both sides of the river, including all islands, rivers, creeks, channels, harbours, docks, etc., within those limits. But the City corporation still retains its

hitherto private and separate London Water Companies, and two urban district council supplies. The Board dis composed of 66 members, 30 of whom are elected by the borough councils, 14 by the London County Council, and the rest by the other local governing bodies of the area. The yearly receipts of the Board amount to almost £3,000,000, but the present expenditure is slightly greater. The previous shareholders were mainly paid by the issue of 3 per cent. Stock. The population supplied is over 7,000,000 persons, and the area supplied is about 537, and the area supplied is about 537, and the area of greater L. as and the area of greater L. as defined above. The water supplied amounts to about 230,000,000 gallons and day, which is drawn from the rivers. Thames and Lea and the New River, and the rest from springs and wells. The charges are uniform over the whole area: 5 per cent. on the rateable value of the house for domestic purposes. There is in storage enough water to last for about forty days. (3) The Port of London Authority is another attempt to place private trading under popular control. It was established by the whole area for various common pur-

ture is about £1,000,000 a year; an average of £27 4s. 8½d, per pauper relieved (as against £14 18s. 10½d. outside London). Rather over £1,000,000 of the on these 31 boards. Their expendi-£1,000,000 of this is raised directly by rates; and about £1,600,000 comes from the Common Poor Fund. The Central (Unemployed) Body for L., appointed under the Act of 1904, is composed of 74 members selected by the London County Council and the distress bodies of the metropolitan borough councils, with members nominated by the Local Government Board. Its function is to assist in finding work for the un-employed. It is not a very successful body, at the best, merely playing with a vital problem of society. The London Fire Brigade is now under the control of the London County Council, but is worth men-tioning as partly an independent body. It is maintained at a total cost of almost £350,000; of which the fire insurance companies paid £38,000, the central government £10,000, leaving the bulk of the balance to come out of the rates. There are about 1400 officers and men attached to about 85 fire stations; and serving powers as port sanitary authority, come out of the rates. There are and Trinity House retains its powers about 1400 officers and men attached as to pilotage, lighting, and buoying, to about \$5 fire stations; and serving The powers of the Conservancy of the the area of 117 sq. m. contained R. Thames are now restricted to the vithin the London County Council river above Teddington, extending to

there were about 4500 fires, only 65 rank; and the students of which it of which were officially termed recognises as internal students: 'serious.' (8) The Central Criminal East London College (Mile End Road, Court is the chief criminal court of L., sitting at the Old Balley, and acting as the assize court for the L. area. The Lord Mayor and aldermen and the Recorder and Common Serjeant the Recorder and Common Serjeant of the City, theoretically at least, act as judges, beside the justices of the High Court. In practice, the Recorder and Common Serjeant try the less important cases, and the more serious charges are heard before a justice of the High Court. Its jurisdiction covers an area of 265,000 acres, which does not coincide, however, with the Metropolitan Police district or any county divisions. It is another example of the muddle which so often results from the interwhich so often results from the interference of the legal mind. It embraces the whole of the counties of Middlesex and L., and the City, besides parts of Essex, Surrey, and Kent. (9) The Metropolitan Police Courts. There are 14 of these, presided over by 26 magistrates appointed by the crown, who have each the powers of any two justices of the peace, or to inquire Justices of the peace, of the into indictable offences. In other words they take the place of the ordinary non-professional justice in other areas, except that they cannot sit at quarter sessions. Their united jurisdiction covers the whole county of L., except a part of Hampstead; and that practically coincides with the London County Council area; except that the City of L. is outside their jurisdiction, and has two police courts (the Mansion House and the courts (the Mansion House and the Guildhall) of its own, presided over by the Lord Mayor or one of the aldermen in rotation. (10) London University is a body of somewhat complex character (which has recently been the subject of a royal commission which has just reported). It received its charter in 1836 as a non-resident university which greated resident university, which granted degrees by examination of students who were free to acquire their educawho were free to acquire their educa-tion where they pleased. By the Act of 1898 it was provided that it shall become a teaching university also, and as a result it has taken over University and King's colleges, the King's College for Women (a part of the original college), the Goldsmith College. Besides these constituent colleges, it also directly maintains the Frances Galton Laboratory for of 1898 it was provided that it shall become a teaching university also, and as a result it has taken over University and King's colleges, the King's College for Women (a part of the original college), the Goldsmith College. Besides these constituent it appears that the area of the colleges, it also directly maintains the Frances Galton Laboratory for Natural Eugenies; the Brown Animal lords; the largest being the collective Sanatory Institution; and the Physiological Laboratory at S. Kensington. Beyond these constituent parts of the University, there are the following Corporation of the City; all these conglises as possessing university there are then 183 owners who average one-third of a square mile

East London College (Mile End Road, E.): Royal Holloway College (Englefeld Green): Bedford College for Women (Baker Street): Westfield College (Hampstead); London Day Training College (Southampton Row); Imperial College of Science and Technicology (Imperial Institute, S. Kensington), comprising Royal College of Science, Royal School of Mines, and the City and Guilds (Engineering) College; South-Eastern Agricultural College (Wye, Kent); London School of Economics (Clare Market, Kingsway); New College (Hampstead); Hackney College (Hampstead); Regent's Park College (N.W.); King's College (Strand, W.C.); Wesleyan College (Richmond); the medical schools of the following hospitals: schools of the following hospitals: St. Bartholomew's (Smithfield), Guy's schools of the following hospitais: St. Bartholomew's (Smithfield), Guy's (Borough), St. Thomas's (Albert Embankment), London (Whitechapel Road), Middlesex (Mortimer Street, W.), St. George's (Hyde Park Corner), Charing Cross (Agar Street, Strand), St. Mary's (Praed Street, W.), Westminster (by the Abbey), King's (now removing to Denmark Hill from Lincoln's Inn Fields), University College (Gower Street, W.C.), London (Royal Free Hospital) School of Medicine for Women (Brunswick Sq., W.C.), London School of Tropical Medicine (Albert Dock, E.), Lister Institute of Preventive Medicine (Chelsea Bridge Road, S.W.), and the Royal Army Medical College (Grosvenor Road, S.W.). The University of L. is governed by a senate formed of a chancellor and 54 members, 4 of these being appointed by the crown in council, 16 by members, 4 of these being appointed by the crown in council, 16 by the convocation (the doctors and proctors) of the university, 16 by the faculties of teachers, and the rest by various public institutions.

The above are the chief official bodies and councils which control L. in their respective ways. But there is an unofficial body which has perhaps as much influence as all the rest, although it has no charter or other

average of one acre each.

Traffic.-It may easily be seen that in such a huge town as L. much will depend on the traffic facilities. In L. these are fairly extensive, but not altogether satisfactory. As we would expect, the great trunk railways converge on L., and have their terminal stations within its borders; thus, the G.E.R. (Liverpool Street), the G.N.R. (King's Cross), the M.R. (St. Pancras) the L. and N.W.R. (Euston), the G.C.R. (Marylebone), the G.W.R. (Paddington), the L.B. and S.C.R. (Victoria and London Bridge), the S.E. and C.R. (Victoria, Charing Cross, Holborn, and Cannon Street), and the L.and S.W.R. (Waterloo) are the ends of the great lines starting from L. S.E. and C.R. has sixty-two stations within the London county area; the G.E.R. and the L.B. and S.C.R. have twenty-seven each within the same area. There is also the Fenchurch Street station of the L.T. and S.R. in agreement with the M.R. The mainly or altogether internal railways and tubes are the following: (1) The North London Railway, terminal at Broad Street, E.C., serving London, with running powers N. extended over some connected lines beyond; in association with the L. and N.W.R. (2) Metropolitan Railway, serving the districts between Baker Street to Harrow, and working with the G.C.R. beyond, to Aylesbury, etc., also between City (Aldgate Street) to Hammersmith and Richmond; with an Inner Circle to South Kensington, and running powers all round the circle. (3) District Railway, extending from Barking in the cast to Uxbridge, Richmond, and Wimbledon on the west and southwest. Parts of the two last lines together form the 'Inner Circle,' with Aldgate and Notting Hill stations as its extreme east and west points, and King's Cross and Gloucester Road stations as its north and south points. (4) Central London Tube, from Liverpool Street to Shepherd's Bush (now being extended to Ealing). (5) Hamp-stead Tube from Charing Cross to Golders Green by one branch, and to Highgate by the other. (6) Picca-dilly Tube, from Finsbury Park, N., the Hammersmith, joined at Holborn station by a short line from the Straud. (7) Bakerloo Tube, from Elephant and Castle to Edgware Road. (8) City and South London Tube, from Clapham Common to Euston, viā the Bank of England and the Angel, Islington. (9) Great Northern and City Tube, from Moorgate to Finsbury Park. (10) Water Rate to Finsbury Park. (10) Water Bank. Of these lines, the Piccadilly,

each: the remaining owners have an Bakerloo, and Hampstead are under joint management, and known as the London Electric Railways Co. This company also hold the controlling interest in the Central London and South London. South London. The other traffic facilities of L. are the tramway and omnibus. The tramways are almost entirely in the hands of the London County Council within their area, and other public or private systems extend over the greater L. area. Over the whole area of greater L. there are about 400 m. of tram lines working, and of these the London County Council owns about 146 m. The tramways on the S. of the river are linked to the northern systems by the subway which runs from the Victoria Embank-ment and emerges on the surface again at the N. end of Kingsway. The omnibuses, now almost entirely driven by motors, are still in the hands of private companies, which cover almost 200 m. of streets within the L. county area. The London General Omnibus Co., the London Road Car, and the Vanguard Motor Omnibus Co., which, between them, controlled most of the omnibuses, amalgamated in 1908, and they have now been included with the London United Tramways Co. in the great London Electric Railway Co. mentioned above. The London County Council attempted to conduct a steamboat traffic on the R. Thames, but it has now been abandoned, and a river service is conducted by a private company during the summer months mainly between London Bridge and as far up as Richmond. The docks.-The docks are one of

the most important features of L .. as one might expect in the case of the greatest trading centre in the world. These docks are now under the control of the Port of London ant control of the Port of London Authority (see abore). The principal wet docks of L. are the following: Tilbury, Royal Albert, Royal Victoria, East India, Millwall, West India and South-West India, London (Stodwell). (Shadwell), St. Katherine, all on the N. side of the river; the Surrey Com-mercial docks on the S. side of the These docks have a total Thames. water area of about 645 acres; and the quays have a total length of almost 28 m. The docks begin just below the Tower of London, and are

Bermondsey, and clock-makers in Clerkenwell, and furniture workshops in Bethnal Green, and there is still silk weaving in Spitalfields. Breweries are famous and numerous, and by some strange luck, smoky L. has been chosen as a suitable place to manufacture biscuits in large quantities. But in the great mass of L. all these trades are of comparatively small account. L. is essentially the city of distributors and middlemen. It is a place of import and export; of bankers and financiers; of clerks and bookkeepers. It is the greatest gold-holding centre in the world. The L. bankers are the heart of commercial L., with the Bank of England at their head. Lombard Street is the classic place for great banks. Then there is the Stock Exchange, almost touching the Bank of England. On the other side of the Bank lies the Royal Exchange, with the great Lloyd's (the place of shipping insurance). The Corn Exchange, the Wool Exchange, the Coal Exchange, the Shipping Ex-change, in other parts transact the business of their respective trades. But perhaps the most pregnant summary of the trade of L. is to be found in the statistics of the tonnage of shipping which passes through the docks during export and import. In 1911, 11,900,000 tonnage of shipping entered L. (the next British town being Liverpool with 7,880,000 tons); 9,000,000 tons cleared the port of L. These figures only cover the trade with countries beyond the British Isles. It is necessary to add the 6,830,000 tons of 'coast-wise' shipping entered, and the 2,900,000 tons of coast-wise shipping that went out.
The total figures, therefore, give an export and import tonnage of almost 30,000,000.

The chief markets have been mentioned above in reference to the City corporation, under whose control and whose property they are. The chief market of L., beyond the possession of the city, is the regetable market of Covent Garden, which is the property of the lucky Dukes of Bedford.

Parks.—In the mass of bricks and mortar which make up L., there are mercifully a few open spaces, some mortar which make up L., there are mercifully a few open spaces, some rest of the L. we know to day was, of considerable size. The most central and most famous is Hyde Park, of 363 aeres, with the adjacent Kenet the Local Government Act, 1888 (consington Gardens, of 274 acres. Practically touching Hyde Park, begins in theory, a green Park, of 52 acres, and adjoining the latter is St. James's Park, of 193 acres. Further N. from the above minster (and for some purposes it still group is Regent's Park, which, with the adjoining Primrose Hill, has a proper latter of 472 acres. All these are royal house had founded, and espectowned by the government, as is liked.

the river. There are leather works in | wise the case with the magnificent Richmond Park, of 2358 acres, which is, however, just over the county of L. boundary, but within the greater L. area. Woolwich Common, of 159 acres, is also in the same control. The London County Council maintains a large number of parks and open spaces having a total area of 5056 acres. The largest is Hainault Forest (805 acres), and the others most important are: Hampstead Heath (320 acres), Hackney Marsh (339 acres), Parliament Hill (267 acres), Victoria Park (Bethnal Green) (217 acres), Clapham Common (205 acres), Battersea Park (199 acres), Wormwood Scrubbs, (199 acres), Wo (Hammersmith) (193)acres), Finsbury Park (115 acres).

History.—The history of L. is inevitably bound up with the story of the nation of which it is the capital city. Nevertheless, there is a more local sense in which that history can be considered, and it is that which must be treated here. L., as we now speak of it,

known to the Anglo-Saxons, the Nor-

places whic dividuality

mans, and even in the days of the Stuarts and Hanoverians, was a city on the E. side of the little streamlet, the Fleet, which ran along the foot of Ludgate Hill. On the E. side of the town its boundary was drawn from the Thames bank, from about the spot where the Tower of London now stands, which has been the military key through almost the whole history of the City. From the days of the Romans a wall ran from this S.E. corner, making a curve just short of alon de and reac the end whe Bridge. rais ere spot on the map of modern L., was the city of history. It certainly extended during the middle ages into small suburbs which grew up at its various gates; chief at Ludgate, Bishopsgate, and Cripplegate. The more important of these suburbs were made into wards of the City. But they reached a very little way from the gates when all is said, All the rest of the L. we know to day was ere spot

Westminster was almost as important | as the City of L. It was the king's city as against the city of the merchants. Even to-day the distinction still holds good in many ways. The departments of the royal government mainly cluster round the Houses of Parliament and Whitehall. other independent manors or villages other independent manors or vinages were Kensington, Chelsea, Paddington, and Marylebone on the W.; Islington, Stoke Newington, Hampstead, and Hackney on the N. Stepney. Whitechapel, Bow, and Bromley on the E.; the borough of Southwark, and the villages of Lambeth, Kennington, Battersea, and many others on the S.; all these names would now on the S.; all these names would now be considered as part of L. They have been swamped and encircled by the

ruthless endeavours of the builder. It is with the doings of L. and Westminster that the historian must be mainly concerned. They were, and are, the two dominant partners in the group. The first L. was probably a Celtic hamlet near the bank of the Walbrook, a stream now built over, and scarcely more than a large drain. But small though it was, it seems to have given the place the name which lasts to this day. In Celtic, Llun-din means a stronghold by the marsh. Another theory traces the name from Lud, a Celtic water-god. The first historical reference to the The first historical reference to the place is in Tacitus; who wrote of it as: 'Londinium, a place which is not indeed dignified with the name of a Colonia, but which is greatly celebrated for the number of its merchants and the abundance of its supplies.' His reference is to the time when it was sacked by Boadicea's army which had risen against the army which had risen against the Romans. The Romans had adopted this spot for much the same reason that it had attracted the Britons: it was the first convenient place where there was both a small hill which could be defended from attack, and also an easily available ford at Westminster close by. The Romans, with their higher engineering skill, were able to build a bridge: at least that is the inference from the fact that the Roman roads concentrate on the

that gave Westminster the two main keynotes which it retained through-out its history. This adoption by the kings left the City of L. more completely in the hands of the merchants, who asserted their privilege of freedom from the direct control of the crown. To this day, when a king of England enters the city he must be met by the Lord Mayor, who hands him the keys of admission at Temple Bar, the western limit of London proper. Almost the whole of what we now call the 'West End' was built on land which was part of the Addey's manor of Westminster; and the chief landowner of that district is now the Duke of Westminster, who has taken the historical place of the abbot and his monks. Southwark, the borough which lies at the S. end of London Bridge on the Surroy side of the river, was an independent place in its early on land which was part of the Abbey's was an independent place in its early history. It was inhabited by the Romans, who left many remains there. Later on it became mainly a Danish settlement during the periods of the Danish raids and rule, and its e Danish for

It was not under the jurisdiction of the City of L., whose town council complained that it had become a refuge for criminals who escaped there in order to get beyond the reach of its magi-strates. But Southwark still retained many privileges, and it was not until the time of Edward VI. (1550) that it was made a ward of the City, with an alderman.

There we have the origin of the three chief units which now form the nucleus of the modern L. For many long years the chief point at issue between L. and Westminster was to settle how much of the wealth of the City merchants should go into the treasury of the Westminster king. The City was the wealthiest place in the kingdom. The kings had other great palaces besides the one at Westminster: in early days Winchester, for example, ranked as the first place in the land. When William the Conqueror arrived, he saw the importance Roman roads concentrate on the of commanding L., and one of his first position where it still crosses the river. acts was to built the Tower, partly On the other hand, the ford gave a inside the walls and partly without, good reason for the selection of West-so that he could dominate the City, minstore an instantant of the could dominate the City, minster as an important place. In the and yet not be surrounded by his minster as an important place. In the indidle of the ford was the little unruly subjects. At first the Tower island of Thorney. The buildings was a royal residence as well as a perhaps began as a halting-place, or the abode of the guides who conducted travellers over the river. King Service of the East Saxons seems to have built a church there as early as 616. and a fort. Charles II. was the last but it was Edward the Confessor's monarch to sleep within its walls. Since the early parliaments were famous; and he added a royal palace practically taxing assemblies called

and fought with them at the great battle of Lewes, 1264. It was the indiscretion of Prince Edward in chasing these Londoners too far from the field which lost his father the battle, for when Edward turned back to his father's assistance it was too late, for the king was a prisoner. The reason for young Edward's mad de-sire to hit at the Londoners gives us an interesting insight into the mediæval history of their town. medieval history of their town. A year or so before, Henry had been short of money, so Prince Edward raided the treasury of the Templars living in the Temple. where it still stands to this day off Fleet Street. The Londoners, like all well-to-do persons, thought that this lawless raiding might arrive at their possessions next. So, to show their anger, they took the first opportunity of throwing mud at the queen as she passed along the Thames under London Bridge on her way from the London Bridge on her way from the Tower to Windsor Castle. The chase at Lewes is generally held to have been incited by Edward's desire to revenge his mother. There is a dramatic sequel to the story. When Henry was rid of Simon de Montfort, he turned savagely on L. and seized control of its government. He demanded that Fitz-Thomas and the chief men of the City should attend before him at Windsor and submit themselves to the royal mercy. They arrived. What happened is a mystery to this day. Some of them were released very quickly. But Fitz-Thomas was never seen again.

In the Charter of 1319, there is a clause declaring that every freeman of L. must belong to a 'mystery' or guild company, unless he could persuade the commonalty to elect him by popular vote. This made the by popular vote. This made the control of L. almost a close monopoly of the craftsmen or guildsmen. In the reign of Edward III. it became a common custom to recognise these guilds or livery companies by a grant of letters-patent from the crown. By 1328, twenty-five guilds were thus legally recognised as possessing power to draw up rules for the regulation of their respective trades. By 1377, when Edward III. died, thirty-five had been added to the list. In 1351 the guilds elected the Common

advantage, and he himself would have the same proclaimed throughout the city and strictly observed." of the Merchant Taylors and of the When the king, Henry III., refused to Goldsmiths; but the Fishmongers procknowledge such a revolutionary lord mayor, the Londoners threw themselves on the side of the barons and fought with them at the great last had been built, and others were health of Lorse 1964. It was the in process of building. This centure in process of building. This century may be taken as the high-water mark of the power of the great City com-panies. In Tudor days the power of the crown increased at the expense of the medieval power of the church and guilds, and the evolution of industry had burst through its mediæval clothes. The day of the more un-restrained individual capitalist was coming fast. The transition from the master of a guild to an American millionaire was well on its way, and it deeply modified the history of L. Edward IV. was in some ways particularly bound up with the history of the City. He was a great favourite with the traders of L. He made love their wives, and generously charters of privileges privileges scattered amongst the smaller guilds. He became a wool trader himself, and did a flourishing trade with Flanders. He also paid his debts punctually. return for all these favours, the citizens gave him a free hand. They allowed him to murder Henry; to grant the famous Hanseatic League of foreign merchants almost complete independence within their guild house, the Steelyard, which stood where Cannon Street station now stands. But it was the Great Re-bellion of the sixteen-hundreds which finally demonstrated the great power of L. One might almost say that the merchants of L. were the motive power in the revolt against Charles I. They were now almost supreme within the walls. Their rival, the Church, had been swept away by the unscrupulous Henry VIII. When Charles attempted to raise money by forced loans and restrain trade by patent monopolies, he found the City merchants too strong for him. All the right was by no means on the City's side, but there was no tact on the side of the king, and when strength meets blind autocracy there must follow war. L. was the strength of the Parliamentary party. When the king used armed force in the House of Commons, the threatened members fled to the City, where they were safe. It shows the strength of the Londoners when we read that all the satisfaction that the pursuing Charles could get, when he entered the City to demand the surrender of Council. It was during the fourteen-houses of the City companies were shout of 'Privilege! When mainly built. Before 1400 we can Charles levied ship-money there was

only one man in all L. who would Lambeth on the S., is another 'small pay. Strafford is said to have counselled Charles to bring the City mag-smith, Fullam, and Putney were nates to reason by cutting off a few quite rural places in his oyes. It is, of their heads. But instead it was therefore, only since this date that Strafford's head that was cut off, and L. has become anything like the place they say 200,000 people on Tower Hill to see it Commons sat in the City friends were arming When Charles heard the the trained bands of L. w he left Whitehall and t ne lett Whitehall and tresidence out of harm's way at Hampton Court. Thereupon the Commons were escorted back to their house at Westminster by the the citizens in tumultuously joyful mood at their victory. Then the Civil War was fought, and L. was the centre and support of the Parliamentary men all through. At the Revolution of 1688 the councillors of volution of 1688, the councillors of L. did not take quite so official a part, though it was within the City that the lords and bishops met (at the Guildhall) to arrange the plot to call William from Holland. When he arrived he invited the lord mayor, When he the aldermen, and fifty councillors to sit in the Convention parliament sit in the Convention parliament which offered him the crown. In other words, he treated L. as an estate of the realm. That was, perhaps, L.'s last appearance of this constitutional kind. Henceforth, it is merely the largest and wealthlest among the other towns of the nation. By this time the swelling of the L. suburbs had begun. When the nobles and gentlemen returned to L. at the Research which is the contraction of the second contractions of the second contractions are the second contractions. gentlemen returned to L., at the Restoration of the court of Charles II., they did not take their old place in the City. They built themselves houses round Covent Garden and St.

w know it. A statistical may help to focus its size. inning of Elizabeth's reign. about 50,000 inhabitants he walls, and perhaps),000 in the suburbs proper. ie the moment of its first rapid growth. By the end of Eliza-beth's reign it had almost doubled its population. By the Restoration of Charles II, the total population was about 450,000. Now it has, in its widest sense, over 7,000,000.

Topographical and architectural features.—The above rapid sketch of

the historical growth of L. will have given a hint as to the distribution of its architectural features, which must now be summed up in a more systematic form. But first a word as to the topography. As said above, L. was at first a settlement on a little hill by the river bank. The City proper is on higher ground. The original hill can best be realised by looking up Ludgate Hill from the E. end of Fleet Street, and also by noticing how the streets to the S. fall away to the river. Then continuing through the City eastwards, the ground descends until the old bed of the Walbrook is reached in Cannon Street, and the more rapid rise of the other bank can be noted just in front of Cannon Street station. side of the City is flat where it reaches the ground, which was in earlier days the Moor or Fen, still commemorated in the names Finsbury and Moorfields. Beyond that the town rises to the high ground of Islington and Hampstead and Highgate. Returning to the foot of Ludgate Hill the Stilds of Elect Street days are respected. James's, continuing the process which had already begun round Lincoln's Inn Fields in the days of Charles I., when the friction between crown and merchant had already started. These carly suburbs linked up L. with side of Fleet Street slopes more and more steeply down to the river until Westminster. It was during the Hanoverian period that the rest of the comparatively steep streets are seen on the S. side of the Strand with the West End spread, drawing, one the ground still rising on the N. side. the surrounding villages Then comes the City of Westminster. within the whirlpool of L. as we know it to-day. Even in 1725, when the traveller De Saussure described it, he could still write that 'Chelsea is built on the old marshes along the Thames, continuing along the river bank towards Putney. The ground rises slowly to the N. until it reaches he could still write that 'Chelsea is one of the linest and largest villages outside London . . . about two miles from Chelsea you reach Kensington, a large and fine village situated on a slight elevation. . . Marylebone is a fine large village about one mile from London. . . Paddington is a small village further north, and two miles distant trom London.' And he writes of Islington as a 'small market writes of Islington as a 'small market town,' and the villages of Hackney, Hampstead, and Highgate, while

one.

Councilarea), Buckingham Palace, the Horse Guards (Whitehall). Domestic and guild houses: The Guildhall, Merchant Taylors' Hall, Apothecaries' Hall, the Middle Temple Dining Hall, Lincoln's Inn Gateway, Barnard Inn, Staple Inn, Gray's Inn Hall, Chelsea Hospital (by Wren), Newcastle Newcastle House, and Lindsay House (Lincoln's Inn Fields), the houses in the Temple, Featherstone buildings, the Adelphi, Berkeley Square, Grosvenor Square, Inigo Jones's house on S. side of Great Queen Street. The best known of the larger private houses are Holland House, Lansdowne House, Marl-House, Lansdowne House, Mari-borough House (belonging to crown), Bridgewater House, Apsley House, ('hesterfield House, Stafford House (to be used as a public museum), Mon-tague House (Whitehall). Churches: Westminster Abbey, St. Paul's, St. Bartholomew's, Southwark Cathe-dral, Allhallows Barking Church, St. Stephen's Wallprok! Seid to be (said to be Stephen's, Walbrook Christopher Wren's best parish church), St. Olave Hart Street Church, St. Andrew Undershaft Church, St. Helens, Bishopsgate, S (best example of a

church of the middle :

Gate. Westminster (built about 1706), a very beautiful square of the period. Bloomsbury is still largely early Victorian, with many houses still older. The Great Ormond Street district has many rows of Queen Anne houses. The Adelphi is the work of the Adam Brothers. Whitehall, with the Admiralty and Horse Guards, etc., is still very Hanoverian in tone. Belgrave Square and its district is fairly uniformly in the style of the period 1830-50. Fitz-roy Square is the work of the Adams again.

Bibliography.—There is a multitude of books on L.; the most convenient

ings, and near the Tower). Chief and New London (6 vols.); Walford's Greater London (2 vols.); the many volumes by Sir W. Besant and his assistants.

London, a city of Ontario, Canada, in Middlesex co., on the R. Thames, includes the suburbs of London Junction and Ealing. There are manufs. of agricultural implements. and breweries, petroleum works, etc. It possesses a university and a ladies' college, Pop. 46,300.

London, Bishop of, see Ingram, ARTHUR FOLEY WINNINGTON.

London, Jack (b. 1876), an American author, is especially famous for can author, is especially lamous for his remarkably sympathetic animal stories, like The Call of the Wild and White Fang (1906). Other of his works and tales of adventure are: The God of his Fathers; The War of the Classes, 1905; Moon Face, 1906; Martin Eden, 1909; and Adventure, 1911. A native of San Francisco, he has been eventor with scaler prisoner. has been oyster pirate, sailor, prisoner, lecturer, and journalist; has hunted scals in the Behring Sea; visited Jupan and Klondike (1897); and tramped over Canada and the States.

London, New, see CONNECTICUT. London and North-Western Railway Company, formed in 1847 by the amalgamation of the Liverpool and the London and Bir-

Junction railways. eering works are at

in London), the Temple Church, Crewe, where they were first established in 1840. The company, which many of Wren's particles over the Cit this town, presented the inthis town, presented the in-with a fine park in 1888,

streets are: Regent Street (Nash in and have otherwise made generous endowments. Sir Richard Moon was chairman for twenty-nine years (1862-91) and Sir George Findley was general manager for close on twenty years. The present chairman is Sir G. H. Claughton, and the is Sir G. H. Claughton, and the present general manager Mr. Frank Rec (1913). In 1911 the capital was £126,351,640; the gross receipts, £16,448,693; the train mileage, £126,331,052, £16,448,693; the train mices, 48,172,654; the miles in work 1966, and the dividend on ordinary stock control of the longest run for the longest run Figure Euston to without stopping is from Euston to Rhyl (2001 m.), the average speed being 52.7 m. per hour. London and South-Western Railway

Company, was opened in 1839, and its Acts were consolidated in 1855. of books on L.; the most convenient company, was opened in 1000, and for general reference are: W. J. its Acts were consolidated in 1855. Lottie, The History of London; The fastest run is from Basingstoke W. R. Letherby, London before the Conquest; Reginald R. Sharp, London to longest without a stop is from and the Kingdom; Stow's Survey of Waterloo to Bournemouth (103 m.) London, written in Elizabeth's time in 2 hrs. In 1911 the capital was (edition by Mr. Kingsford); G. R. £57,429,630; the total receipts, Striling Taylor, An Historical Guide £5,770,185; the dividend on ordinary to London (Dent); the new 3-vol. ed. stock, 6 (the same in 1903); the train (by Wheatley) of Cunningham's mileage, 20,079,500; the miles in Handbook of London; Cassell's Old work, 964; and the number of engines, 748. The present chairman Geology; Bowerbank's Fossils of the is Mr. H. W. Drummond, and the London Clay; Whittaker's Geology general manager is Mr. H. A. Walker of London. (1913). The London terminus is Waterloo station. Southampton, Portsmouth, Plymouth, Ilfracombe, and Bude are all situated on main lines. The company owns the Southampton docks, including the huge Empress Dock, and some twenty steamers which convey passengers from Southampton to the Channel Islands and to France.

London, Brighton, and South Coast Railway Company, was constituted in 1846. The fastest run which this in 1846. The lastest run whole company makes without stopping is from Victoria to Brighton (51 m. in 1 hr.). The conital is 1900 000 0000 the total rec dend on 911: dend on 511; 51 in 1903); the train mileage, 13,009,288; the miles in work, 454; and the number of locomotives, 535. The present chairman is the Earl of Bessborough, and the general manager is Mr. William Forbes (1913). Brighton, Eastbourne, and Portsmouth all have stations on main lines, whilst the coastal towns from Portsmouth to Hastings are also served by this company. It further is joint-owner with the French Wes owner when the received way Company of the service between Newha Dieppe, and it also runs cargo-steamers between

and Caen. Clay London regions of this.

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of the triangles are near Hungerord of the triangles are near Hungerord sag. m. Pop. (1911) 140,621. 2. Or Derry, the co. tn., situated on a hill bases are clearly marked by the extent of broken and low coast with muddy estuaries. It is a stiff clay, city walls, which extend for about a grey, red, brown, and bluish, with mile and include sever gates and little tree of hedding and no lower several bastlons. There are some fine or the triangles are near Hungerford and Salisbury respectively, while the bases are clearly marked by the extent of broken and low coast with muddy estuaries. It is a stiff clay, grey, red, brown, and bluish, with little trace of bedding and no large number of fossils. The fossils are indicative of an old estuary with dicative of an old estuary with warmer seas than now, and indicate the presence of palms, turtles, crocodiles, and other tropical life. Layers of septaria occur, worked on the E. coast and N. Kent into cement. The outcrops are largely marked by the presence of brickfields with their the presence of brickfields with their transferrence in the presence of brickfields. The characteristic yellow bricks. The beds are based on sand and gravel, below which lies the chalk; they have below which lies the chalk; they have borough, and returns one member a maximum thickness of over 700 ft. to parliament. Historically it is The impervious bed imprisons large famous for the siege which it susstores of subternnean water supplied tained against James II. In 1689, from the Chilterns and North Downs, and which is commemorated by a and renders possible the artesian column surmounted by a statue of wells which supply the fountains of the governor, George Walker. The Trafalgar Square and an increasing anniversary of the relief is still obnumber of factories and business jervedon July 30. Pop. (1911) 40,799. houses. Scc Lyell's Principles of London Gazette, The, first appeared

Londonderry, a northern co. of Ireland in the prov. of Ulster, bounded N. by the Atlantic. The surface varies, being composed of river valleys, rising to table-lands and mountains, of which the highest elevation is Mt. Sawell (2236 ft.). The most important river is the Roc, which cuts the county in two and flows into Lough Foyle, others also nows into Lough Foyle, others also flowing into Lough Foyle are the Faughan and the Foyle, while further S. are the Moyola and the Bann. Lough Finn is the only lake, but Lough Neagh forms part of the E. boundary. The climate is not good for agriculture, but cattle and sheep are reared and oats turning and are reared, and oats, turnips, and potatoes grown, also flax. The principal manuf. is linen, and there are also potteries, breweries, and are also potteries, breweries, and distilleries. The Bann affords fine salmon and cel fisheries, and the deep-sea fishing is carried on extensively. It is divided into six baronies, and two parliamentary divisions, each returning one member. In 1609 the estates of the O'Neils, who owned most of the county, were and made over to the London; the common ondon then inaugurated

s ociety and they retained f L. and Coleraine, while twelve of the big livery companies the rest of the property them. In 1637 James I.

mile and include seven gaves and several bastions. There are some fine old buildings, of which the Protestant Cathedral of St. Columba is the finest, dating from 1633, and close to it is dating from 1633, and close to it is the bishop's palace (1716) occupying the site of the abbey founded by St. Columba. Linen manuf. is the chief industry, especially shirt-making, but there are also shipbuilding yards, iron foundries, breweries, etc. There is a fine harbour and the shipping trade is considerable. It is a county borough, and returns one member in 1666, being in reality the 24th number of the Oxford Gazelle. Charles Perrot, M.A., a fellow of Oriel College, Oxford, edited it till about 1671. Although it aimed at being the official recorder of news, its scanty columns contained little up-to-date information. After the Revolution (1688) it appeared three times a week, the reader paying a penny for two double columned follo pages of scrappy gossip or dry, inaccurate 'news.' In 1707 Richard Steele was appointed in 1707 Richard Steele was appointed in 1846, when

In 1846, when is at its height, ssumed bulky dimensions because of the unprecedented rush of advertisers. On Nov. 15 of that year it was swollen on this

account to as much as 583 pages of printed matter. To day it appears twice a week, on Tuesday and Friday. Its pages are filled with announcements of appointments, promotions and retirements, etc. in the army and navy, and with advertisements inserted in accordance with the order of a court or the law of the land.

London Military District was formed in 1905 by the Army Order of Jan. 6. This order reorganised the various military districts, staffs, and com-mands of the United Kingdom. In England, in addition to the Aldershot, Southern, and Eastern Commands, the North-Eastern district became the Northern Command, and the District of London and the Welsh and Midland Command ware control. County Council District in Maintenant of Charlet at Caterham, and the home hold through at Windsor are meaning in the Lor don District, as are the camps at for the purposes Pirbright manœuvres, etc., in the summer.

London Topographical Society was founded for the publication of material illustrating the history and topography of the City and County of London from the earliest times to the present day. It reproduces maps, views, and plans, publishes documents and data of every description, and gives a yearly record of demolitions and topographical changes. Several maps and plans, the earliest dating from 1550, have already been produced. The Society publishes The London Topographical Record.

Long, George (1800-79), an English scholar, was a wrangler at Trinity College, Cambridge, in 1822, and in the following year gained a fellow-ship, though the future Lord Macaular was his rival. He served as classical professor at the University of Virginia (1824-28), and in what was afterwards University College, London (1828-31). From 1849 to 1871 he held a similar post at Brighton College.

Throughout his life he was engaged in editing Greek and Latin texts, and when he was growing old published his laborious Decline of the Roman Republic (1864-74). Moreover he became a barrister in 1837, and delivered two discourses on law, which were subsequently published. But the greatest achievement of his industry and learning was the Penny Encyclopadia (29 vols. 1833-46), of which he was sole editor.

Long, Roger (c. 1680-1770), an English astronomer, took his M.A. degree from Pembroke Hall, Cambridge, in 1704, and fourteen years later became a doctor of divinity. In 1729 he was chosen vice-chancellor of his university. For three years (1749-51) he was Lowndes' professor of astronomy, after which he retired to a country vicarage. His textbook on astronomy (1742 and 1764) did much to penularise the science.

did much to popularise the science.
Long, Walter Hume (b. 1854), an English statesman, was educated at Harrow and Christ Church, Oxford. Since 1880 he has sat continually in parliament, his constituencies being N. Wiltshire (1880-85), Devizes division (1885-92), W. Derby (1892-1900), S. Bristol (1900-5), S. Dublin (1906-10), and the Strand division of London (1911). He has always served the Conservative party, and was parliamentary secretary to the Local Government Board from 1886-92, and from 1895-1905 he held successively the presidencies of the Board of Agriculture and the local Government Board, each for period of five years. In 1898 he was created colonel of the Royal

Wiltshire Imperial Yeomanry.
Long, Loch, a sea loch of Scotland, being a branch of the Firth of Clyde between Argylshire and Dumbartonshire. It extends N. from Holy Loch to Arrochar for about 18 m., and its width is from 1 to 2 m.

Long Beach, a watering place and summer resort of California, U.S.A., situated on San Pedro Bay, 4 m. E. of Wilmington. Pop. (1910) 17.809.

Long-boat, in former times attached to ressels so as to enable the sallors to pursue smugglers or hostile merchantmen, to carry the provisions on board, and in the time of the pressgang, foreibly to carry off men to man the ship. It was equipped with sailing tackle as well as oars.

Long Branch, a city of New Jersey, U.S.A., in Monmouth co., about 30 m. S. of New York. It developed into a watering-place, and was chartered as a city in 1904. It possesses a noted drive, the Ocean Avenue, 5 m. long. Pop. (1910) 13,298.

Longehamp, a pleasure resort and racecourse of Paris, France. The

Chancellor of England, was a Norman of humble origin, whom Richard I. made Bishop of Ely in 1189, and atterwards, when he went on the Crusade (1190), joint-justiciar with Hugh de Puiset, Bishop of Durham. Like Wolsey, L. was unfailing in his devotion to his king, but his scorn of everything English, his burdensome taxation, his haughty bearing, and his ungalpy person roused such a his ungainly person roused such a storm of popular dislike that he was soon expelled from the kingdom. Richard, later, made him chancellor, because he had helped to secure his ransom.

Long Eaton, a small tn. of Derbyshire, England, 10 m. E.S.E. of Derby, in the valley of the Trent. The principal industry is the lace manuf., and there are railway carriage works. Pop. (1911) 19,215.

Longevity, scientifically, refers to the length of life of any organism. In the case of lower forms of life very little has been determined, but the range is probably large; L. of a few hours is common. Higher plants are classed as annuals, biennials, perennials, etc., the range extending from a month to thousands of years. De Candolle gives figures as follows in years: Elm. 335; ivy. 460; palms, 600-700; line, 1076-1147; oak, 810-1500; yew, 2380; buobab, 5000. In the animal kingdom, the range is considerably less, complexity of organism giving rise to greater chance of death. Certain infusoria live less than fortycertain iniusoria live less than forty-eight hours. Cold-blooded animals live comparatively long: Pike and carp, 150; tortoises, 100. Birds are long lived: Eagles and crows, 100; peacocks, 20, but many smaller birds only 5 or 6. Among mammals, the clephant ranks highest, over 100; camel, 50-80; horse, up to 40; deer, 30; ox. 15-20; dogs. pigs, 15-20. Al-though in cases some relation her though in cases some relation has been suggested between the period of gestation, or the age of maturity and the complete term of life, no laws have been formulated. Amongst the human race, the biblical three score and ten still gives a healthy average, though it is not uncommon for the century to be passed. The average duration of life in Europe is regional. gestation, or the age of maturity and the complete term of life, no laws have been formulated. Amongst the century to be passed. The average duration of life in Europe is reckoned as about thirty four, a figure which as about thirty-lour, a name which takes account of infant mortality.

Alleged cases of extreme L., such as the Seasureana me rireside, with The that of Thomas Parr, 152 years 9 Building of the Ship, were all volumes months, may be dismissed as of short poems and lyries, most of the ship of th

latter is situated at the end of the son of Stephen L., a lawyer and a Bois de Boulogne, and the race for the Grand Prix is run here.

Longchamp, William do (d. 1197), Bowdoin College in Brunswick, where Chancellor of England, was a Norman Nathaniel Hawthorne was a fellow-of humble origin, whom Richard I. student. After graduation (1825) he was offered a professorship of modern languages at his own college, and spent over three years on the Con-tinent, visiting France, Germany, England, Spain, Italy, and Holland, in order to qualify himself for the post. After six years' work at Bow-doin College (1829-35), he accepted a similar chair at Harvard. In 1835, and again in 1842, he returned to Europe, which he visited for the last time in 1868. His home during the latter part of his life was a stately wooden residence in Cambridge. where Washington had stayed during the siege of Boston. He was twice married, first to Mary Potter (1831) and afterwards (1843) to Frances Appleton.

Like Wordsworth, L. passed a singularly happy and uneventful life, darkened only by two tragic sorrows, one the loss of his second wife, who was burnt to death in 1861, the other the loss of Agassiz, to whom he refers with such moving and beautiful sentiment in the five sonnets entitled Three Friends of Mine. His joy in life, his geniality, and his lovable disposition were all reflected in his face. which Kingsley said was the most beautiful human face he had ever seen. Many are the generous tributes which friends have left to the nobility

of his character. L. was a facile and tircless writer, and the mass and variety of his out-put is amazing. Besides publishing linguistic textbooks and contributing to reviews and magazines, he made several translations, the best of which is a rendering of the Divina Commedia (1867). Yet though he is wonderfully faithful to his original, he has failed to suggest the Dantesque fire and glowing mysticism, and his version is monotonous by reason of the absence of rhyme and the fre-

icluding 'Excelthe Hesperus.' acksmith'; and

te. popular anthologies. As a dramatic Wadsworth poet, L. has established small reputan poet, the tion. His extravagantly emotional

play, The Spanish Student (1843), Lough Ree. Marble has been found attracts few readers in this unitations pasturage is good in places and some pasturage is go

Mystery (1872), on. It is an Christianity at of the world's

history, but the mustrations chosen are wanting in balance. The first part, The Divine Tragedy (1871) is a noble paraphrase of the Gospels; the second, The Golden Legend (1851), is a delightful love story and lyric drama based on von Aue's Der arme Heinrich: and the third, entitled New England Tragedies (1868), exposes a cheerless and evanescent religious atmosphere.

endowed, like William was Morris, with a spontaneous gift for story-telling. In his Courtship of Miles Standish (1858) he re-animated the 'dry bones of Puritanism,' and in his Tales of a Wayside Inn (1863) he has strung together, with just such an excuse as Boccaccio had in his Decameron, a number of graceful and pleasurable stories. But the finest exposition of this gift is undoubtedly his epic, Erangeline (1847). Here he tells of the wanderings of two French lovers of Acadia, who are parted on their wedding-day, and who are only reunited when he is old and is dying in a hospital. This is one of the most popular of the longer poems and deservedly so, for it is wonderfully rich in tender pathos, sweet romance, and a stirring humanity. Hiawatha (1854) is the best appreciated of all the poet's works. Its haunting melodious metre, which affords such a contrast to the hexameters of Evangeline, is admirably adapted to the weird and old-world legend of the Indian Prometheus, whilst the en-nobling allegory is so lightly mirrored forth, and the delightful cameo-pictures of the native skies and woods and hills are so deftly inset in the narrative of Hiawatha's pro-gress, that truly these 'legends of prairieland belong to the world's great story-book. In conclusion, it may sufely be said that though it is idle to look fundity of the modern his poems will ing they last the same songs better.' See his Life (1886-90) by Samuel L., his brother. Longford: 1. A co. of Ireland in

deal of marsh and bog. The chief growing there. Market gardens rivers are the Camlin, flowing into the flourish in the W., and cabbages Shannon, and the Inny, flowing into and cucumbers are grown for safet

in the county, also iron and lead. The pasturage is good in places and some cattle and sheep are reared, and oats and potatoes are the chief crops. Linen and woollens are manufactured. county is divided The into and two baronies parliamentary divisions, each returning one memrea 421 sq. m. Pop. (1911) 2. Co. tn. of above, and Area 421 sq. m. 43,794. the trade centre for grain, butter, and bacon. It has corn-mills and

and bacon. It has corn-mills and tanneries, and possesses one of the finest churches in Ireland, St. Mels Roman Catholic Cathedral for the diocese of Ardagh. Pop. (1911) 3747.
Longhi, Giuseppe (1766-1831), an Italian engraver, the son of a silk-mercer, who destined him for the church, but L. had his way and followed art. In 1798 he succeeded his old master, Vangelisti, as professor of engraving at the Brera, Milan. The ideal of a good etcher, he believed, was not to display his own skill but to translate on to the copper the original. This ideal he realised in his

Sposalizio' after Raphael, and his

Madonna de Lago after Da Vinci. Longinus, Dionysius Cassius (c. 213-273 A.D.), a Greek philosopher, belougs to the group of men who gathered round Porphyry, his pupil, and is thus one of the last of the great pagan literati. The son of wealthy parents, he left his native Syria to study in Rome and Athens, and thus had every opportunity to absorb the culture of his day. But though he must have been taught the doctrines of Neo-Platonism, he never seceded from the old Platonic school. Like Socrates, he took his own lite, and thus escaped the sentence of death passed on him by the Emperor Aurelian because he assisted his patron, Zenobia, Queen of Palmyra, in her revolt against imperial sway. There are strong reasons for believing that he wrote the Treatise of the Subtime (µcp Vlovr), in which the highest critical acumen is united with

a singularly pure and elevated style.

Long Island, an island lying of the coast of Connecticut and New York state, U.S.A., and forming part of the latter. It is 118 m. long, from 12 to 23 m. wide, and is separated from the mainland by Long Island Sound, which varies in width from 2 to 25 m., and is over 100 m. in length. Except on the N. the coast is much indented, and there are numerous bays, headlands, and smaller islands. In the Great South Bay there are large oyster beds, the famous Blue Points growing there. Market gardens flourish in the W., and cabbages and caupabers are grown for sauer-

kraut and pickles. Brooklyn and at the same time they numbered Queen's boroughs, which form part among their kings some wise and of New York City, lie at the W. end., able men. They were eventually kraut and pickles. Suffolk forming the Nassau and remaining counties. The carliest English settlement was in 1640, and they were closely followed by the Dutch. The battle of L. I. was fought there in 1776; it was the first battle in the campaign and resulted in a victory for Lord Howe. The area is

1682 sq. m. Pop. (1910) 2,700,000.

Long Island City, formerly a city of Queen's co., New York, U.S.A.. Since 1898 part of the borough of Queens, New York City, at the W. end of Long Is.

Longitude. see LATITUDE LONGITUDE.

1 England: and the works of John Stuart Mill, Froude, Sir Rider Haggard,

W. E. Lecky, Andrew Lang, and William Morris. Since 1826 they have been the proprietors of the Edinburgh and from 1863-1905 they ed Longman's Magazine controlled (known as Frascr's till 1882).

Longobards, Longobardi, or Lombards, the name of a nation of ancient Gormany, belonging to the Suevic tribe. Their original dwelling place was on the E. side of the R. Elbe, but during the 4th or 5th century they ! dwelt on the banks of the Danube and were successful in destroying the Heruli, while about the middle of the 6th century they lived in Pannonia,

conquered in quite a different way | Longstreet, James (1821-1904), an from their own people, allowing American Confederate general, born them none of their privileges, but in S. Carolina. Served and was

conquered by Charlemagne.

Long Parliament, the name of two parliaments in English history (1640-53 and 1661-79) and of one (1886-1900) in the history of Spain. follows a brief account of Charles I.'s parliament, to which the title belongs par excellence. Its first act was to compass the execution of the Earl of Strafford by

and it then Star Chaml church and royalist party grew up under the leadership of Hyde and Falkland, when Pym and Hampden, the chief statesmen of the popular Longmans, a London firm of publishers, established in 1724. In that Branch Bill and the Grand Remonycar Thomas Longman, the founder strance that they intended to abolish (1699-1755), took over the business of the existing system of ecclesiastical William Taylor, who occupied the government and get the reins of 'Ship' and the 'Black Swan,' two government into their own hands. In shops in Paternoster Row. The house 1642 Charles made a fulfile attempt of the present firm, Longmans, Green to seize Pym, Hamden, Holles, & Co., stands on the same site. Hazlerigge, and Strode, his chief Ever since the foundation members enemies in the House. From 1644 Ever since the foundation members of the same family have continued to exercise a major control, though other men have from time to time been taken into partnership. In 1890 heen taken into partnership. In 1890 the 'Tiving-ton' Among the 'Tiving-ton' A re's Lalla Presbyterian members by the high-Lays of handed action immortalised as ingland, 'Pride's Purge.' The Rump, as the

remnant was called, was submissive to its master, and obediently voted the execution of Charles and the institution of the Commonwealth (1649). In 1653 it was angrily dismissed: the dictator had no further use for it.

Longridge, an eccles, par, and tn. of Lancashire, England, 6 m. N.N.E. of Preston. There are large stone-quarries in the neighbourhood, and the industries include cotton weaving and the manuf. of nails. Pop. (1911) 4340.

Long Service and Good Conduct Army Medal, is, as its name implies, a reward for long service combined with exemplary conduct, the qualifications necessary being service with 'irreoth century they are victorious over the necessary being service with irre-Gepidæ. In 568, after crossing the proachable character and conduct' Julian Alps, they, under their king, for a period not less than eighteen years. The medal has on the obverse a military ettley of the sovereign (formerly it had a trophy of arms), which was ruled over by various and on the reverse 'For long service and good conduct.' It is suspended the Italians whom they had conquered in quite a different way

wounded in the Mexican War, and was made a brigadier-general at the outbreak of the Civil War. He took part in the battles of Bull Run, Fredericksburg, Gettysburg, and Chickamauga (1863). His acci-dental wound by his own men as a burning point of the battle of the Wilderness (1869) was of the utmost importance, as it checked the Confederates' assault at a critical moment. At the close of the war he was attacked by the extreme irreconcilable party of the S. He was minister to Turkey under President Grant, and commissioner of railways to President McKinley and President Roosevelt. He published From Manassas to Appomattox (1896), and his defence of his action at Gettysburg appeared after his death.

Longton, a municipal borough and market tn. of Staffordshire, England, situated in the S. of the potteries, 21 m from Stoke-on-Trent. From a small hamlet it has grown into a pottery town of considerable size, with blast furnaces, etc. There are coal mines in the vicinity. It now forms part of the borough of Stoke-

on-Trent.

Longueuil, Barony of, see LE MOYNE. Longus, a Greek writer, who lived probably during the 4th or 5th century A.D. He is remembered as the author of a book called Pastoral Matters concerning Daphnis and Chloe, which is noteworthy on account of its style and simplicity. Among the various editions may be mentioned: a translation by M. L. P. Courier (new edition by Robert Gas-chet, 1911), and Amyot's translation of 1784.

of 1784.
Longview, a tn. of Texas, U.S.A., situated in Gregg co., 60 m. W. of Shreveport. Pop. (1910) 5155.
Longwood, see ST. Helena.
Longwy, a fortified tn. of France, in the dept. Meurthe-ct-Moselle, 18 m. S.W. of Luxemburg. There are iron mines in the vicinity. Pop. 10,000.

Long Xuyen, or Long Chuyan, a tn. of Lower Cochin-China, on the Bassac, 32 m. S.E. of Chandoc. Communication is maintained between the town and the gulf of Siam by the Rachgia Canal. Pop. (district) 95.000.

Lonigo (ancient Leonicum), a in. of Venetia, N. Italy, in the prov. of Vicenza. It is situated on the Frassine, 23 m. W. of Padua, and possesses ferruginous springs. Pop. 10,400.

Lonneker, a com. and vil. in the Netherlands, situated close to the Prussian border, in Overijssel. Pop. 17,577.

17,577.

From 1853-62 he occupied the position of professor of Finnish at He-singfors University. He is the editor of Kantele, 1829-31; Kalevala, 1835; Kanteletar, 1840; Sanalas Kuja, 1842; Arroiluksia, 1844, all collected from Finnish literature. and a Finnish dictionary (1866-80). See Ahlqvist, Elias Lönnrot, 1885. See A. E.

Lons-ie-Saunier, a tn. of France, and cap. of the dept, of Jura, situated on the R. Vallière, 76 m. N.N.E. of Lyons by rail. Its name is derived from the Montmorat salt mines, which are close to the town. manuf. of wine is the chief industry, and there is also a trade in horses and

cattle, cheese, etc. Pop. 13,000. Loo (formerly called Lanterloo), a round game of cards played by any number of persons. Three cards are dealt to each player, and an extra hand called 'miss,' and the top of the undealt cards is turned up for frumps. Each player then, having previously contributed to the pool, declares whether he will play, pass, or take 'miss.' If he passes he lays his cards 'miss.' If he passes he lays his cards face downwards on the table, and if he takes 'miss,' he does likewise, but must play with his new hand. Those who have declared to play then lay their cards one at a time in rotation, the highest of the suit winning the trick, unless it is trumped, as in whist. The cards played remain face upwards before the players. If the leader holds the ace of trumps, he must play it, or the king if the ace is already played, or if he has two already played, or if he has two trumps he must lead one. Subsequent players must follow suit, and must head the trick if able. If not able to nead the trick it able. It not able to follow suit, but can trump, must do so. The winner of the first trick must lead a trump if able. When the hand has been played out, the winners of the tricks divide the pool, each receiving one-third of the amount for each trick. If only one declares to play, the dealer plays miss for the pool, and the tricks he wins remain there as an addition to the port pool. there as an addition to the next pool. If each declared player wins at least one trick, it is a 'single,' and a fresh pool is made as before; but if one of the declared players fails to make a trick he is looed. Then only the player who is looed contributes to the next pool. If more than one is looed, each has to contribute.

Loo Castle, see APELDOORN. Loo-choo, Lu-chu, Liu-kiu, a group of islands which belong to the empire of Japan, and extend S.W. from the island of Kiushiu, towards Formosa, their area being about 1870 sq. m. The chief islands of the group are Oshima, Tokunoshima, Islugaki, Iriomote, and Oniwaka, the last one Lönnrot, Elias (1802-84), a Finnish Irlomote, and Onlwaka, the last one scholar, born at Sammatti in Nyland. being the most important, and having 585

Shuri, the capital, situated on it, with Nafa as its port. Some of the islands are of volcanic formation, while others They have a are coral islands. pleasant, warm climate, but are subfect to typhoons. The soil of the islands is fertile, and produces large quantities of sugar as well as sweet potatoes—the chief food of the inhabitants—rice, sago, tea, tobacco, fruit, and oranges with an aromatic flavour. During the 14th century the kingdom of Loo-Choo paid tribute to China, but also had connections with Japan. In 1609 it was subject to Satsuma, but in 1874 the claims of China were given up, and a year or two later Loo-Choo became a part of the empire of Japan. The manners and customs of the people bear a Japanese, though they are by no means identical. See Journal of the

Royal Geographical Society, 1895.
Loofah, or Vegetable Sponge, the fibrous skeleton of a gourd (Luffa apppliaca). After the pulp in which the seeds are imbedded has been removed, the fibre is used as a bath

sponge.

Lookout Mountain, a ridge in north-western Georgia and adjacent parts of Tennessee and Alabama, rising to 1600 ft. above the Tennessee R. was stormed by General Hooker in 1863.

Loom, see Cotton.

Looming, a sailor's term for the indistinct or exaggerated appearance of land, a vessel, or other object through haze or darkness at sea. It is of obscure origin, and must be dis-tinguished from 'looming,' the action or process of mounting the warp on the loom.

Loomis, Elias (1811-89), an Ameri-

can scientist. Connecticut, an

(1830). He was lego (1833-36); appointed professor of mathematics in the Western Reserve College, Ohio (1837); held the professorship of natural philosophy and mathematics in New York Uni-versity (1844-60); and in 1860 became professor of natural philosophy and astronomy at Yale. He published several series of text-books on mathematics, philosophy, astronomy, and meteorology.

Loon, a tn. on the island of Bohol, hilippine Is. It possesses a shel-red harbour. Indian corn, coffee, Philippine Is. tered harbour.

cerea narbour. Indian corn, coffee, cocoa, cotton, tobacco, cocoa-nuts, etc., are cultivated, and stock-raising is carried on. Pop. 18,000.

Loon op Zand, a com. of the Netherlands in the prov. of Brabant, and situated in the S. of the Langstraat. There are boot and shoe factories. Pop. 7817.

Loosestrife, sec Lipimachia, Lyth-ACEÆ, and LYTHRUM.

Lope, Felix de Vega Carpio (1562-1625), a Spanish poet and dramatist, born in Madrid. He took part in the expedition to the Azores in 1582, and also served in the Invincible Armada in 1588. He was secretary to the Duke of Alva and the Marquis of Malpica, and in 1613 took holy orders. He was held in high holy orders. He was held in high estimation in his own day, and his influence in Spain was as great as that of Voltaire in France. He was a volu-minous writer, and epics, pastorals, odes, sonnets, and novels all fell from his pen, but it is, however, to his dramatic works that he owes his eminent place in literary history, and of these he wrote altogether over 2000. Some of his best known are: Los Ramilletes de Madrid ; La Boba para los Otros 11 Discreta para si ; El para los Olros Il Discreta para si; El Perro del Hortelano; La Viuda de Valencia; El Maestro de Danzar; Las Flores de Don Juan; Desprecio agradecido; Estrella de Serilla; Esclava de su Galan; Premio del bien Nablar; Alcalde de Talamca, Among his other works are the Angelica, an epic poem, written in imitation of the Orlando Furioso; the Arcadia, a pastoral romance; Dragonica, an epic poem concerned with the history and death of Drake; Isidro, a sacred poem which deals with the life of Isidore, patron saint of Madrid; Jerusalem Conquistada, an epic in competition with Tasso; Pastores de Belcn, a religious pastoral; Filomena, La Circe, written in emula-tion of Cervantes; Laurel de Apolo, and La Dorolea, a prose drama.

Lope de Rueda, sce RUEDA.

Lopes, Sir Manasseh Masseh, first

1755-1831), a politician, defrom a family of Spanish
orn in Jamaica. In 1802 he
conformed to the practices of the Church of England, and was returned to parliament for New Romney, be-coming a baronet in 1805. In 1812 he was member for Barnstaple, and in 1819 was imprisoned for bribery and

corruption. On his release he was returned for Westbury, 1823, and again in 1826, but resigned his seat in 1829 to provide one for Peel. Lopez, Francisco Solano (1827-70), a Paraguayan soldier and statesman, born at Asuncion. He was the son of Carlos L., by whose will he assumed the executive in 1862, and became president for ten years. His acts of cruelty and torture bordered on in-sanity; in these, he was influenced by Madame Lynch. Finally he was driven from Asuncion, and he re-treated into the interior, where he and his eldest son were seized and

R. Aquidaban.

Lophiadæ, Lophiidæ, or Angler Fishes, a family of fishes with a very large mouth, and teeth hinged so as to bend over towards the throat. They have a depressed body, and live on the sea bottom, often at great depth. The angler fish (Lophius piscolorius) is a British species (see Anglers). The first few dorsal fin ray, are long and flexible and terminate in expansions over the snout which lure small fish within reach of the great mouth.

Lophiodon, a genus of extinct perissodactyle or superfluous toed Ungulates forming with the still existing Tapiridæ the super-family Lophiodon-Fossil remains of various toidea. species are found in the Eocene strata, varying in size from a horse

to a rhinoceros.

Lophobranchii, see Bony Fishes.

Lop Nor, see Lon Non.
Lora del Rio, the cap. of the prov.
of that name in Spain and about

Lorain, a city of Obio, U.S.A., in Lorain co., on Lake Eric, 25 m. S.W. of Cleveland. There is a good harbour, and coal, iron ore, lumber, and grain are shipped. The manufs. are stoves, and automatic steam shovels, Pop. (1910) 28,883.

Lorca, a city of Spain, in the prov. of Murcia, 38 m. S.W. of Murcia. There are Roman antiquities, and

Moorish walls and tower. Pop. 70,000. Lord, a word derived from the Angle-Saxon hlaford, provider of food (hlaf, loaf, ord, beginning), and has a variety of usages. The Lord is a term applied to the Jehovah of the O.T. and to the Saviour of the N.T. All bishops and archbishops are lords spiritual, whilst members of the House of Lords assume the title of lords temporal. It is a title given to persons of the peerage, and to those who have been created peers. All eldest sons of peers, such as dukes, marquises, and earls, whilst assuming an inferior title of the peerage, have the word 'lord' by courtesy prefixed Younger sons to their entire name. of the peerage have only the word 'lord' prefixed to their Christian name and surname. There is an official employment of the word as in the case of the titles lord Lord ~ ocate, Chief Lord Justice

High Steward, Lord High Trensurer, Lord Keeper of the Great Seal, Lord resident of the

All judges are addressed throughout the British Isles as 'My Lord,' when acting in their official capacity. In some cases,

killed by a Brazilian force near the the members of boards which represent state legislation are called lords, as in the case of Lords of the Treasury,

Lords of the Admiralty, etc. Lord High Steward. Se seeHIGH STEWARD OF ENGLAND.

Lord Howe Islands: 1. Lord Howe Is. is situated in the Pacific Ocean lying off Australia, about 520 m. E.N.E. of Sydney, and is under the administration of New South Wales. The island is of volcanic formation, and has coral reefs. 2. Lord Howe is the name given to Mopilia Is. of the Society Group, and to Ongtong, Java, of the British Solomon Is. 3. The Santa Cruz or La Pérouse Is. in the Pacific are also known as the Lord Howe Is.

Lord-Lieutenant, The (of a county), is nominated by the sovereign by patent under the great seal. Hestands for the permanent local representative of the crown, and is responsible for the maintenance of public order. This title was first created in the reign of Henry VIII., and entailed many responsibilities. The lord-lieutenant had to maintain the efficiency of the militia of the county, and had the right of appointing his own officers. These rights were withdrawn in 1871 and revested in the crown-The chief duties imposed on the lord-lieutenant in present times consist in his appointment of magistrates for the county bench, in his appointment of deputy lieutenants, and in his raising the militia, if need be, in times of riot or invasion. He is, as a rule, a peer, large landowner, and is often appointed custos rolulorum.

Lord-Lieutenant Ireland. of

IRELAND. Lord Mayor of London, see LONDON.

Lord Nelson, a British battleship, which was completed in 1908. It was built at Jarrow, and has a displace-ment of 16.500 tons and a length of 410 ft. with a speed of about 19 knots.

Lord of Misrule was the 'master of mirth and fun' appointed in the king's court for the feast of Christmas. His nomination took place on All Hallow's Eve, and he remained in office till the Feast of Purification. According to Stubbs these mock dignities had from twenty to sixty officers under them, and were furnished with hobby-horses, dragons, and musicians. In Scotland they received the title of 'Abbot of Un-

reason. Lord of the Isles, see ISLES, LORD

Bedchamber.

Lord's, House of, see PARLIAMENT. Lords - and - Ladies , (Botany), ARUM.

Lord's Day, see SARBATIL. Lord's Supper, sec Eucharist. Robert Threshie Loreburn. Sir

tions and in Lit. Human. He was appointed solicitor-general and then attorney general in 1895. He was M.P. for Dumfries during the years 1886-1905, and received a decoration for his services in the Boundary Arbitration Commission. He was created knight in 1894 and baron in 1906.

Lorelei, or Lurlei, the name given to a rock rising out of the Rhine near St. Goar, in the prov. of Hesse-Nassau, Prussia. There are many legends associated with the L., which possesses a wonderful echo. One legend runs that a maiden sits upon this rock combing her glorious hair and tempting fishermen to death by the stirpassing sweetness of her song which makes them approach the rock too closely. Another legend makes this rock the hiding-place of

the Nibelungen treasure. Lorenzetto, Pietro, an Italian painter, born at Siena towards the end of the 13th century; some of his pictures being dated earlier than 1305. His best works are: 'The Nativity of the Virgin,' 'The Invention of the Cross' (1338), and a group of figures in the Siena group of figures in the Siena Museum. His brother, called Ambrogio di Lorenzo (c. 1265-13481), was also a painter. In 1337-39 he executed in the Palazzo del Publico, some in the Palazzo del Publico, some Loris-Melikoff, Mikhail Tarielofrescoes representing the saints worshipping at the feet of Got in, born in Father, which has stood very

the passage of time.

Lorenzo Marques, see Lour

MARQUES.

Lorenzo di Medici, sce Medici. Loreto, a dept. of Peru, situated in

the valley of the Amazon. The [district is densely wooded and consequently difficult of approach. It is watered by the rivers Ucayali and Huallaga, between which lies a large plain, the Pampas del Sacramento.

Loreto, or Loretto, a city of the arches, Italy, 15 m. S.S.E. of acona. It is a famous resort for Marches, Ancona. pilgrims because of the Santa Casa, or Holy House, of the Virgin, which is reputed to have been brought over from Nazareth by angels in the 13th century. A magnificent church holds the sacred shrine which is adorned with most costly treasures.

Lorica, or Santa Cruz De Lorica, a tn. and scaport on the R. Sinu in Columbia, America. It is the centre of a shipping trade. Pop. 11,000.

Reid, Lord (b. 1846), the second son and ranks as the most important of Sir James John Reid. He was centre for the building of men-of-war. educated first at Cheltenham College The port is divided into a comand then at Balliol College, Oxford, mercial and naval harbour. The chief where he took a first class in Moderacoal. The naval port is situated at the mouth of the R. Scorff, and possesses quays upon which are built enormous workshops, foundries, and establishments of all kinds for the construction and equipment of menof-war. Long-boats and canoes are built at Pré aux Vases, whilst the heavy battleships are built at Cau-dan. The port is well protected by forts, the most prominent one being St. Michel, possessing a powder magazine.

Lorimer (Lat. lorum, thong), the term given to makers of bits, spurs, metal mountings for saddles, and to all articles of horse furniture. The Ls. were incorporated in London by letters-patent in 1712. Cutlers, lock-smiths, and brass founders are in-cluded in the guild of Ls.

Lorimer, James (1818 - 90),Scottish jurist and author. He became a barrister in 1845, and later was made professor of pub-lic and international law in the Edinburgh University. His chief Editional Conversity, His ones publications are; Handbook of the Law of Scotland; Constitutionalism of the Future; Institutes of Law; Institutes of the Law of Nations; Political Progress not necessarily Democratic; Studies National and International.

army in 1843 iment during . and on the was made

governor of that stronghold. wards he conducted a brilliant campaign in the war against Turkey, and was me Kharkov in ecame Ministe under Alexan reforms in the Russian administration.

Loriti, Heinrich, see GLAREANUS, HEINRICUS.

Lörrach, a com. and tn. in the grand duchy of Baden, Germany, 4½ m. N.E. of Başle. It has manufs. of cloth, calico, etc., and also a con-siderable trade in tobacco, wine, fruit, and cereals. Pop. 14,756.

Claude, Lorraine, SEC LORRAINE.

Lorraine (Ger. Lothringen), an ancient prov. of the N.E. of France which was originally the portion of the empire of Charlemagne, which fell Lorient, a fortified scaport in to Lothair by the treaty of Verdun France, lies on the S. coast of in \$43. Later, it consisted of the de-Brittany in the dept. of Morbinan, partments of Meurthe-Moselle, Meuse and the Rhine, the northern portion between the Moselle and the Rhine bearing the name Upper Lorraine, and the southern portion Lower Lorraine. Since 1871 it has formed one of the three districts of Elsass-

Lothringen, belonging to Germany. Lorris, Guillaume de (c. 1215-c. 1240), a French poet, born at Lorris. Little is known of his actual life, except that he was the author of the famous medieval poem. Roman de la Rose, which was finished

by Jean de Meung about 1277. Lory (Lorius or Eclectus), a genus of brilliantly coloured parrots. They are honey eaters, and the bill is but slightly curved, and the tongue long and protusible. Also a S. African name (Louri is the native name) for the white-crested plantain eater

(Corythaix 19 in. long; and the fea

are tipped with white; the wing feathers are brilliant carmine.

Los Andes, or Santa Rosa de los Andes, a tn. in Chile, 65 m. E.N.E. of Valparaiso, at the foot of the Uspallata Pass. Pop. 5600.

Los Andes, a territory of Argentina, covers an area of 22,000 sq. m., and was taken over by Argentina in 1899.

Pop. 2300.

Los Angeles, a city of California, U.S.A., the cap. of Los Angeles c 350 m. S.E. of San Francisco. T Spanlards took possession of it 1780, when it was already a thriv-lians under Sargon. ing place. There is a university, a Roman Catholic cathedral, botanic gardens, etc., and the manufactures are considerable; oranges, grapes, walnuts, and cereals form the chief products. L. A. is a favourite resort for invalids, on account of its mild climate. Pop. (1910) 319,198. Los Angeles, a tn. in the prov. of Biobio, Chile, the cap. of the dept. La

Laja, and stands at an altitude of

Loschwitz, a German health resort of Saxony, 3 m. E. of Dresden-

of Saxony, 3 m. E Neustadt. Pop. 6300.

Los Islands, a small group lying off the W. coast of Africa, are of volcanic origin, and belong to the British colony of Sierra Leone; their names

are Factory, Tamara, and Ruma.
Losonez, a tn. in Hungary, in
the comitat of Nograd, 45 m. from Waitzen, is noted for its ferruginous springs. Pop. 10,000.

Löss, see Lorss.

Losser, a com. of the Netherlands, situated in Overlissel, 37 m. E. of Deventer. Pop. 10,009.

Lossiemouth, a scaport, Elginshire, built in the Scotland, stands at the mouth of the (1911) 1373.

and Vosges. The name was given R. Lossie on the Moray Firth, and to two territories between the Saône has a very fine harbour. Pop. (1911)

4207.

Lossing, Benson John (1813-91), an American historian, born in Beekman, New York, and began his career as a New York, and began his career as a journalist, publisher, and engraver. In 1850-52 he produced the Pictorial Field Book of the Revolution, which was followed in 1866-69 by the Pictorial Field Book of the Civil War, and of The War of 1812. He also published a series of school histories, a large history of the United States, a history of New York, and other similar volumes.

Lost Property. If a man loses anything, he can claim it at any time from anyone he sees in possession of it, and the one who finds the article is entitled to it next after the owner provided he comes upon it in a public place. But should the finder keep the property when he knows the owner, he is guilty of theft. So, too, is the man who discovers a valuable brooch while digging in another man's garden and fails to give it up: for the owner of private land is entitled to all found on it. But the mere keeping of a lost article, in hopes of getting a reward for giving it up, though the owner be known, does not amount to theft, and there is no obligation on the finder of L. P. to incur expense in advertising Lost Tribes. In 721 B.c. a large

en tribes-were by the Assyr-

These people subsequently disappeared from history, thus gaining the title of the L. T. Other denorations occurred notably that under Nebuchadnezzar, of a large portion of the principal inhabitants of Judah, after the fall of Jerusalem (586 B.C.), but these are reported to have returned when Cyrus overthrew the Babylonian empire (538 B.c.), whereas no authentic account of the northern tribes is forthcoming. A very improbable theory, and one that is still held by some people, is that the English are descended from these L. T. These people assert that the Israelites were carried into Media, and they identify them with the Sacm or Scythians. who appeared as a conquering horde

of England.

Lostwithiel, a municipal bor, and market in. of Cornwall, stands on the Fowey, 21 m. N.E. of Truro; it contains the rulns of Restormel Castle, built in the time of Henry III. Pop.

589 accompanied his uncle in the journey from their fatherland. He was allowed by Abraham to choose for himself the prosperous country in the Jordan valley near Sodom and Gomorrah. On the approaching destruction of these two cities, he and his

family were led from Sodom by two angels, and an addition to the story is made, telling the fate of L.'s wife. He took refuge in the mountains near Loar, and here he became the father of Moab and Ammon by his two daughters. This incident is possibly

an insertion from another story.

Lot, a dept. of S.W. France, formed in 1790 from the dist. of Quercy. The surface, which is varied, is crossed from E. to W. by the L. and is highest in the N.E. Wheat is the chief cereal, but maize, oats, and barley are cul-tivated to a large extent. Wine is the principal product, the most valued being that of Cahors, grown in the valley of the L. Large quantities of chestnuts come from the N.E., and the department also produces potatoes, tobacco, and hemp. The chief minerals are coal, iron, and zinc;

of Lozère, Aveyron, Lot, and Lot-et-Garonne, passing Mende, Espalion, Entraygues, Cahors, Penne, neuve d'Agen, and joins the Garonne near Aiguillon. It has a length of 300 m., and the area of its basin is 4350 sq. m.

Lota, a seaport tn. in Chile, 20 m. glass-making and important er-smelting. There is good copper-smelting. anchorage, and even large vessels can approach quite near the shore. Pop. 5000.

Lot-et-Garonne, a dept. of S.W. France formed from parts of Guienne and Gascony. Its surface, which consists mainly of wide plains, is traversed by the Garonne from S.E. to N.W., and by the Lot from E. to W. The valleys of these rivers are exceedingly fertile, and the slopes of the low hills are covered with orchards and vineyards. The soil is highly cultivated, wheat being the chief cereal, then maize and barley. Hemp and mulberry leaves are also products of the province, and the vine covers quantities of iron are found.

Lot, spoken of in Gen. xi. 27 as the seat of a bishopric and of the court of appeal for the department. Area 2079 sq. m. Pop. 268,083.
Lothaire I. (795-855), a Roman

emperor, was the cliest son of the Emperor Louis I., who divided the empire among his sons in 817. He undertook the government of Italy in 822, and was crowned emperor at Rome in 823. He was alternately master of the empire, and banished and confined to Italy. He claimed the whole of the empire on his father's death, but was defeated by his brothers at Fontenoy (841), and by the treaty of Verdun (843) received Italy and the imperial title, together

with some land in the valleys of the Rhine and Rhone. He renounced the throne in 855 just before his death.
Lothnire II. (c. 1070-1137), called 'The Saxon,' a Roman emperor, succeeded to his father's lands around Helmstadt in Saxony in 1075, and became Duke of Saxony in 1106 on the death of Magnus. He was elected wins of Gormany in 1195 succeeding king of Germany in 1125, succeeding Henry V., and was crowned emperor

at Rome by Pope Innocent II. in 1133. Lothians. The, a dist, on the S. side of the Firth of Forth which includes the cou

burgh, called Mid-Lot

formerly embraced the eastern part of the Lowlands from the Forth to the Cheviots, i.c. all the English part of Scotland in the 11th century.

Loti, Pierre (Louis Marie Viaud) (b. 1850), captain of the French navy, and French novelist, born at Rochefort. He served throughout the Tongking campaign with distinction, but retired from active service in 1883. He was elected a member of from Arauco. It is the centre of the the French Academy in 1891, and Chilean coal-mining, and also carries succeeded the celebrated romanticist, Octave Feuillet. As an author he is the very autithesis of Zola, and his works mark a revival of the spirit of romanticism in French literature, Some of his books are Le Mariane de Loti, 1880; Mon Frère Yves, 1883, Erench French

1886, a fisherfolk, the most popular of all his writings; Propos d'Exil, 1887, a work of extraordinary merit; Ramuntcho, 1897; L'Inde sans les Anglais, 1903; Disenchanted, 1906; Pélérin d'Angker, 1912.

Lotions, liquid washes used as remedies for bruises, sores, and en-larged joints. They are usually solu-tions of various sults, and differ from about 9 per cent. of the surface, embrocations or ointments in that Minerals are few, although large oils or fats are absent. The chlorides The of ammonia, soda, and line are comchief town is Agen, which is also the mon washes. Sal ammoniac with

vinegar or spirit is used for applica-lis conducted fairly, or thinks that the tion when there is no open wound; chloride of lime or soda for ulcerated mouth and throat or tumours. Calomel in lime water, known as black wash is a more efficient L. for ob-

stinate ulcers. Lotophagi (Δωτοφάγοι, lotus-eaters), a people mentioned by Homer, who lived on the fruit of the lotus, the taste of which was so delicious that any one who ate it lost all desire to return to his native country. In historical times the Greeks came across people who used the fruit of the lotus as an article of food on the N. coast of Africa, and called them L. But it has also been said that they inhabited the large island of Meninx or Lotophagitis, adjacent to this coast. They carried on a commercial intercourse with Egypt and with the interior of

Africa, using the caravan routes that are in existence to day.

Lots, Casting, a system of divination common among primitive and civilised peoples. The most common method is by pieces of wood or straw, which are marked and covered up, one or more being then drawn out at random. Tacitus speaks of this method being used by the ancient Teutons. The Romans also made use the famous Sortes Virgiliana, which were performed by opening a copy of Virgil and drawing deductions from the first lines that caught the eye. Other books were also made use of, and the custom passed into the Christian Church. We find many canons and penitentials condemning the practice of using the gospels, psalters, etc., in this way. See also DIVINATION.

7 ... unnel 91 m. gun in 1906 Pass, which

above Kandersteg and ends at Gop-penstein. It was opened in June 1913. Lottery, in English law, is a statu-tory public nuisance, though on the Continent such form of competition is both authorised and carried on by the state. The essence of a L, is the award of prizes by lot or mere chance, the commonest form taking the shape of money prizes for drawing a winning number. Theoretically, a competition is not a L. if some degree of petition is not a L. if some degree of taining twenty-three life-size ligures. skill, however slight, is requisite to securing a prize, but the adverse decisions of the High Court to the continuance of the 'Limerick craze' and 'rogressive whist drives' (see Gamble) and prostrate and others of shrubby hubit. L. Berholetii (syn. peliorhymchus), a valuable plant for hanging-bulling) are against the theory, and indicate that if the court is either not red pea-shaped blooms and silvery satisfied that a particular form of competition of mixed skill and chance. British: the bird's-foot trefoil (L.

. 4.5

element of chance altogether pre-dominates over that of skill, it will construe the competition as a L. Formerly state Ls. were authorised by various Acts of parliament in England, but they were dropped in 1824, and any one who allows a L. to be carried on upon his premises may be liable to a fine not exceeding £100, while any one who sells tickets for a L. is liable to a fine not exceeding £50; and in each case the offender may be dealt with under the Vagrancy Act, 1824, as a rogue and vagabond. The only kind of Ls. allowed by the law are art union Ls., conducted by societies (incorporated by royal charter) with the express object of distributing works of art; this being a gracial and argustra prioritors in a special and exclusive privilege in the interests of art. On the same principle it is difficult to see why the interests of religion should not be subserved by 'raffles' and other hazardous competitions at church bazars, but strictly all such con-retitions constitute to Sallium propetitions constitute Ls. Selling packets of tea or any other commodity with coupons attached entitling the purchaser to some prize of problema-tical value, constitutes a L., but not so 'football competitions,' i.e. that extremely popular if unintellectual pastime of endeavouring to prizes by correctly forecasting results of a series of professional football matches. It is to be noted, however, that competitions for guessing the results of football matches or forecasting any other uncertain event will or may come within the Betting Act. A L. is essentially a betting transaction, although a greater or less degree of skill may be employed, and if the proprietor of a newspaper or any other concern habitually con-Operand to the hotsenberg valley in at his offices and takes ready more, the Valais. The tunnel starts a little in the shape of a preliminary deposit, he will assuredly find himself the subducts so-called 'skill' competitions ject of criminal proceedings. See also GAMING.
Lotto, Lorenzo (c. 1480-1556), a re-

ligious painter, born at Venice. His most celebrated altar-pieces are to be seen in the churches of the Carmine and SS Giovanni e Paolo, Venice, the cathedral of Asola, and at Monte San Giusto, near Ancona, where the church contains a Crucifixion containing twenty-three life-size figures.

have been the Egyptian L. of ancient history, though it does not now occur

in Egypt (see Nelumbium). Lotze, Rudolf Hermann (1817-81), a German philosopher, born at Baut-His first essay was De Futuræ Biologia Principibus Philosophicis, with which he gained his M.D. in 1838. But he laid the foundation of his philosophical system in Metaphysik (1841) and his Lonik These books, however, re-(1843).mained unnoticed by the reading public, and he first became known as a physiologist combating the then accepted doctrine of vitalism, his Pathological works being Allgemeine Pathologic und Therapie als mechanische Naturwissenschaften (1842 and 1848), Allgemeine Physiologie des Körperlichen Lebens (1851), and Medizinische Psychologie oder Psychologic der Seele (1852). His great work, however, was his Mikrokosmos, the first volume of which appeared in 1856, and this gives a comprehensible statement of his opinions on nature and man, and shows him to be essentially the philosophen of the transition from tl idealism of the first ht '.' to the most recent materialism. This book has through four editions, and has I translated into English (1886). .O

notable works of his are System der Philosophie, Logik (1874 and 1880; trans. 1884), Metaphysik (1879, trans. 1884), and Geschichte der Æsthetik in Deutschland (1868). L. was professor of philosophy at Leipzig in 1842, and in 1845 was appointed to the chair of

in 1845 was appointed to the chair of speculative philosophy at Göttingen, where he remained until 1880.

Lotzen, a th. in E. Prussia, 70 m.
S.E. of Königsberg. Pop. 6982.

Loubet, Emile (b. 1838), President of the French republic, 1899-1906, born at Marsanne, Drome. Hestudied her obtained his doctor's degree, and law, obtained his doctor's degree, and became Mayor of Montélimar in 1870. He entered political life in 1876, and showed himself to be the enemy of the Monarchist coalition. He fought the clerical system established by the Loi Falloux, and worked hard for free elementary education. He supported the Gambetta and Ferry ministers, and voted for Tongking and Tunis credits. In 1885 he became senator, and two years later was appointed Minister of Public Works. In 1892 he became Minister of the Interior, and in 1895 President of the Senate in succession to M. Challemel-Lacour, reactionary policy. His subjects, He was a warm friend of M. Faure, stimulated by the Revolution of

corniculatus) is abundant in pastures, and on his sudden death was called and is sometimes grown in the rock upon to fill his place. During his garden. Two small species occur presidency the Dreyfus case was rarely on the S. coast. The sacred L. settled, and the French ambassador (Nelumbium speciosum) is believed to was recalled from the Vaticau, the separation of church and state being voted in the Chamber of Deputies.

Loudon, Gidean Ernest, see LAUDON. Loughborough, a market tn. and municipal bor. of Leicestershire, on the Loughborough Canal. The principal industry is hosicry making, but engineering is also carried on, and there are iron and dye works and bell foundries. It has a grammar school

founded in 1495. Pop. (1911) 22,992. Loughren, a market tn. of co. Gal-way, Ireland, 10 m. S.E. of Athenry. It is the seat of the Roman Catholic

bishop of Clonfert, and has a cathedral, built 1900-5. Pop. (1911) 2507.
Loughton, an urban dist. and tn. in Essex, 5 m. from Epping. Pop. (1911) 5433.

Louis, or Ludwig (Lewis), the name of a number of German emperors

from the 8th century onwards:

Louis I. ('le Débonnaire' or 'the
Pious') (778-840 A.D.), son of Charlemagne, succeeded him as Roman emperor and king of the Franks (814). See Franck, Ludwig der Fromme, 1832; Frantin, Louis le Pieux, 1840; Cimenn Jahrbücher des frankischen

., 1862-65. II. (c.822 II. (c.822-875), son of L., associated in the govern-855.

n the

1894-1900. Louis III. (c.880-c.924), grandson of above, succeeded his father under his mother's regency (887), and was nominal emperor from 901-5, being deposed and blinded by Berengar I.

of Italy. Louis IV. or III. ('l'Enfant') (893-911), last of the Carolingians, king of

Germany from 900.

Louis F. or IF. ('the Bavarian')
(c. 1287-1347), elected Holy Roman
emperor with the help of the Ghibelines (1314). He was excommunicated (c. 1324) by Pope John XXII., and later opposed by Clement VI. See Fischer, Ludwig IV., der Bayer, 1882; biographies by Burgundus (1612), Mannert (1812), Schlett (1822).

Louis, or Ludwig (Karl August) (1786-1868), King of Bavaria. He married in 1810 the Princess Therese of Saxe-Hildurghausen. He succeeded in 1825, and the early part of his reign was very successful. Heinitiated many reforms, and ruled on the whole for the good of his people. But dur-ing the later period he acted differ-ently, and adopted a more or less reactionary policy. His subjects, 1848, revolted and forced him to abdicate.

Louis II. (Otto Frederick Wilhelm), (1845-86), Kir of Louis I. of

his father in Austrian-Prus

the Austrians, but came ultimately over to the side of Prussia. He was the proposer of the formation of the German empire in which Bayaria

itself was merged.
Louis IV., V., see FRANCE.
Louis VI., (surnamed 'Le Gros')
(c. 1080-1137), son of Philip I., with
whom he was associated in the
government from 1100, succeeding
him as king of France (1108). He
made Surer abbot of St. Denis his made Suger, abbot of St. Denis, his chief minister, and did much for the defence of the Church. L. also tried to check the power of the feudal lords of the Isle de France, and was continually seeking to add lands to the royal domains. His wars with Henry I. of England for the possession of Normandy were unsuccessful. Sec Luchaire, Louis VI. le Gros, 1889; Les communes françaises, 1890; Histoire des institutions . . sous les premiers Capétiens, 1891; Sismondi, Hist. des Français; Suger, Vic.

Louis VII. VIII and V. Capenage.

Louis IX. to check the power of the feudal lords

commonly ceeded his father, Louis VIII., at the age of eleven, and the days of the regency of his mother, Blanche of Castile, were the scene of feudal reaction on the part of the nobility. Hav-ing taken over the government him-self, he was successful in defeating an English army of invasion and forcing Henry III. to acknowledge the over-lordships of France in Guienne. In 1249 he embarked on his first Crusade. but his army was overwhelmed and defeated in Egypt. He had already captured Damietta, but he was him-self captured and held to ransom. He proceeded on his release to Acre, and remained in Palestine until 1252, when the death of his mother caused his return. His internal reforms in France were many: he founded the Sorbonne, and established a definite relationship between Rome and France by the Pragmatic Sanction; he set up the Parlement de Paris, and issued also a new code of laws. In 1270 he entered on his second Crusade, which was, however, owing to the influence of Charles of Naples, his brother, diverted to Northern Africa, and in this same year L. died at Tunis. He was canonised in 120. A contemporary, Joinville, gives a good detailed account of many of his actions in La Vie de St. Louis; other blographies are by Faure, 1865, at Tunis. He was canonised in 1297. Wallon, 1893.

XI. (1423 - 83), King Louis France, the eldest son of Charles VIII. Owing to his attempts on his father's throne, he was forced into exile in Burgundy, and remained there until his accession in 1461. The severity of his rule, and his obvious attempts to increase the power of the crown, led to a revolt of his feudal vassals under Brittany and Burgundy. His greatest opponent was Charles the Bold of Burgundy. He was compelled by Charles to help to put down the revolt in the town of Liege, but in turn stirred up the Flemish and Swiss towns against Charles. Charles was twice defeated, and featly hilled in hettle grainst and finally killed in battle against the Swiss. Louis claimed Burgundy, but failed to maintain his claim until 1482, when by treaty Burgundy and Artois were ceded to France. His policy throughout his reign had been to weaken the power of the feudal nobility and to make the monarchy despotic. In order to do this he increased the power of the parliaments. He succeeded also in consolidating France, and in addition to the cessions already mentioned, he annexed Provence. His chief advisers were taken from the lower classes, his virtual prime minister being the barber Olivier. He was to an extent imbued with the spirit of the Renaissance, and helped art as much as he could. He also founded three universities. His later years were spent

versities. His later years were spent in misery and superstitious awe.

Louis XII. (1462-1515), the successor of Charles VIII.; his kindness and lack of soverity gained for him the title of the 'father' of his people. Much of his time was spent in campaigns in Italy, where at the beginning of his reign he was successful a overwanter. Wilson and in belging in overrunning Milan and in helping in the conquest of Naples. In 1513, however, he was finally driven out of Italy, and in the same year suffered defeat at the hands of the emperor and Henry VIII. at the battle of the Spurs. By his marriage to Anne of Brittany he added the last remaining independent feudal fief to the

kingdom of France.
Louis XIII. (1601 - 43), son of
Henry IV., on whose assassination he
succeeded to the throne of France
at the are of nine. His mother, Marie de' Medici, acted as regent, and pursued a policy of alliance with the Catholic powers, which led to a revolt of the Huguenots. This was, however, speedly put down. The king, on being declared of age, con-tinued the Edict of Nantes, and called the last States general which met before the eve of the French Revolution. In 1624, Cardinal

Richelieu became the virtual prime

minister and ruler of France. By people held him in much the same the capture of La Rochelle in 1628 awe as the Romans had regarded their he finally crushed the Huguenots, although the Edict of Nantes was under his control, and the lettres de not revoked. Under the guidance of cachet were a weapon of great the cardinal, France took an active efficacy, and he issued altogether part in the Thirty Years' War, supported the Protestants against and Austria. In 1642 Richelieu control of the control of and in the following year the

died also. Louis XIV. (1638-1715), the son of Louis XIII., whom he succeeded in 1643. His mother, Anne of Austria, became regent, but the chief power lay in the hands of her minister, Mazarin. The policy of the exclusion of the nobility from the chief posts in of the nobility from the chief posts in the government led to the rising known as the Fronde, which was brought to an end in 1659. In the following year L. married the Infantu Maria Theresa, and in 1661, on the death of Mazarin, L. began his long period of personal government. The keynote of the whole of his reign rate despeties his most of 1255 the was despotism, his motto, 'L'Etat c'est moi,' typifles the whole of his policy. His reign witnessed a number of great internal reforms. Under the great minister, Colbert, the finances of the kingdom were reformed, trade increased, and a n.I strong colonial policy was pursued. The financial reforms provided the sinews of war for the great wars which were fought during the reign. Under his great war minister, Louvols, his armies were reformed, and under his great generals, Turenne and Condé, the French army became the finest fighting machine in Europe. In 1667 he began the first of his wars of aggression. The war of Devolution began on the death of Philip IV. of Spain, L.'s father-in-law. In right of his wife, L. claimed part of the Netherlands. He made himself master of Flanders and the Franche-Comté. The alliance of England, Holland, and Sweden prevented his power from expanding, and in 1668 the Treaty of Aix-la-Chapelle led to the sur-render of the Franche-Comté. He continued his policy of aggression, and again entered the Netherlands in 1672, his armies being led by Turenne and Condé. He overran many of the

Irn, influenced L. to such an extent that he revoked the Edict of Nantes. This in reality marks the beginning of the fall of L.'s The persecutions of the greatness. Protestants led to the flight from the country of many of its ablest work-men, and to a great decrease in the wealth of France. In 1688 a French weath of France. In 1988 a Frence army invaded the Palatinate, and left William of Orange free to invade England. The war of the League of Augsburg which followed terminated by the Treaty of Ryswick, which was a small translated to the treaty of Ryswick, which was the could be supported to the country of the state of the country of the state of the country of the state of the country of the co in reality merely a truce, and which caused L. to give up all conquests which he had made since 1678. In 1700 died Charles II. of Spain, leaving the crown of Spain to Philip of Anjou the second grandson of L. L., inspite of the Second Partition Treaty, accepted the will of the Spanish king. The emperor supported the claim of the Archduke Charles, afterwards Charles VI., and was assisted by England and Holland in the War of the Spanish Succession. The interference of England was due to the recognition of the Old Pretender by L. as James III. The War of the Spanish Succession terminated in the Treaty of Utrecht in 1713, and gave Spani to L.'s grandson, but the victories of Blenheim, Ramillies, Oudenwage, and Malphaguet had dies. Oudenarde, and Malplaquet had left France a ruined country, although until his death, two years after the treaty, L. continued his despotism. His reign is supreme in the age of French literature, and was productive of such men as Corneille, Racine, Molière, and Boileau, whilst religion was represented by men of the type of Bossuet and Fénelon. See Vol-

of Bossuet and Fénelou. See Voi-taire, Siècle de Louis Qualorze; Mémoires de Sl. Simon; Life of Louis XIV. by Hassall (1895). Louis XV. (1710-74), King of France, sometimes called the 'Bien Aimé': he was the great-grandson of Louis XIV., whose eldest son and grandson both died in 1711. L. was wet over five very of one when he and Condé. He overran many of the cities of Alsace, and also continued the conquest of the Netherlands. In Louis XIV. whose eldest son and 1678 the Treaty of Nimeruen left grandson both died in 1711. L. was him in possession of the Franche Conté, and of many of the fortresses of the Spanish Netherlands. He still administered by the king's uncle, continued his policy of aggression, Orleans. The age of Orleans was and by means of the law courts he succeeded in obtaining many cities on the borders of Germany, amongst and so for the fact that peace was the borders of Germany, amongst maintained with England, since Orleans of the government were entirely under his control, and the self on the throne. In 1725 L. married such violent opposition that he rethe daughter of the deposed King of signed. Matters went from bad to Poland, and after the death of Orleans, his chief minister was Cardinal Fleury. In the War of the Polish Succession, France succeeded in establishing the claims of L's father-in-law to the Polish throne. During the War of the Austrian Succession, the French supported the claim of the Elector of Bavaria to the throne of Austria in lieu of Maria Theresa. They were repeatedly successful on land, but their trade and navy were ruined by the English. The great duel in India and America between England and France may be said to begin here. The financial state of France, however, was chaotic, and all the money which could be obtained was lavished by L. on his mistresses, especially on M. de Pompadour, and later on Madame du Barry. The country was overtaxed, and was further humiliated by the practical conquest of all the French possessions in India and America during the Seven Years' War. The peace of Paris (1763) de-similarly deprived France of the of her colonial empire. nucleus Towards the end of the reign the Parlement de Paris attempted to wrest some of the privileges of the crown from it, but was finally unsuccessful, and France, on the death of L., was bankrupt and ready for revolution. Sec Voltaire's Siècle de

Louis XV.
Louis XVI. (1754-93), King of France, the grandson of Louis XV. He was the third son of Louis XV.'s the bands of the alliance, in 1770 L. married the daughter of Maria Theresa, Marie Antoinette. L. succeeded to a bankrupt kingdom, and the early years of his reign were spent in attempting to cleanse the Augean stables of badly managed finance. The state had a national debt of over 4,000,000,000 of livres. and the people paid altogether well over 50 per cent, of their income in taxes. The king agreed to many minor reforms, but was prevented by the Church and the nobility from

worse, and a new lease of life was given to the aristocracy by the administration of Calonne. Brienne succeeded him but did nothing, and finally it became apparent that the States-general, which had not met since 1614, would have to be called. The state had by this time stopped all money payments, and Necker had again attempted to put an end to the financial embarrassments. It must be remembered that few, if any, of the grievances of people were due the grievances of people were due directly to L., who was personally popular and who desired to do his best for his people. In May 1789 the States-general met, the Third Estate having been called in doubled numbers. The Third Estate speedily took upon themselves the rectifying of grievances and formed themselves. upon themselves the rectifying of grievances and formed themselves into a national assembly. Proclaiming a new constitution, they gained for themselves the title of the Constituent Assembly, and the Revolution had begun. The king refused to accede to their demands for libertly, and retailed and retailed and retailed and retailed. egalité, fraternité, and retaliated by dismissing Necker and calling out the troops. By August the assembly had declared the equal rights of man and had practically abolished private property. Many of the nobles and many scions of the royal house fied. In October Versailles was attacked, and L. and his family forced to take up residence in Paris. The next two Louis XVI. (1754-93), King of France, the grandson of Louis XV. (1754-93), King of France, the grandson of Louis XV. (1754-93), King of France, the grandson of Louis XV. (1754-93), King of the was the third son of Louis XV. (1754-93), King of Louis Prussia caused great alarm, and was one of the chief causes of the proclamation of the republic. December 1792 the king was brought to trial for treason against the republic, was sentenced to death, and executed on January 21, 1793. He was guillotined in 'La Place de la Revolution. Louis XVII. (1785-95), titular King

of France, the second son of Louis XVI., became dauphin on the death of his elder brother in 1789. remained a prisoner after the death by Turgot. Necker succeeded in prisoned with his mother, but was straightening the finances of the later removed to the Temple and country to a certain extent, but again placed under the charge of the now a proposal to tax the classes who infamous Jacobin bootmaker named were excluded by privilege led to Simon. Many stories are related of

the revolting cruelty of his keeper, and particularly distinguished herand also of his alleged escape. It self during the Napoleonic campaign seems now definitely fixed that he died in 1795. He has been personified most notably by a Prussian named Karl Wilhelm Naundorf, whose resemblance to the Bourbons was striking. This pretender made his way to France in 1833, but was later ex-His children kept up the pelled. claim for a time.

XVIII. Louis (Stanislas Xavier) (1755-1824), King of France, the younger brother of Louis XVI. He claimed the title of king of France after the death of Louis XVII. in 1795. He continued in exile.

Buckinghamshire in Englar Napoleon's first abdication when he crossed to Calais sumed the throne of Francisco

was thoroughly reactionary, and the severity of his measures did much to ensure a good reception for Napoleon during the Hundred Days. Louis and his family at this time fled to Ghent, and remained there until after Water-On returning to France Louis promised amendment, and for a time seemed likely to keep his promise. But the excesses of the Royalists kept France continually in a state of anarchy, and the king was finally compelled to accede to the wishes of

the Royalists.
Louis, Sir Thomas (1759-1807), a
British admiral, born at Exeter,
Devonshire. Entered the navy in 1770. In 1778 he served in the action off Ushant, and in 1780 was present at the defeat of Langare off Cape St. In 1794 he was placed in command of the Minotaur, which in 1797 was sent to join the Mediterranean fleet off Cadiz, and in 1798 was one of the ships sent to reinforce the small squadron under Nelson at the battle of the Nile. L. continued to serve under Nelson during 1799. In 1805 he again joined Nelson off Toulon, but through being sent with a detachment of six ships to provision the fleet at Gibraltar, was not present at the battle of Trafalgar. In 1806 L. went to the W. Indies, and was present at the battle of San Domingo as second in command under Duckworth, being rewarded with baronetcy for his services the following year on board his ship, the Canopus, off Alexandria.

Louisa Augusta Wilhelmina Amelie (1776-1810), Queen of Prussia. a daughter of Karl, Duke of Meckien-

by her self-denying efforts to obtain concessions at Tilsit from Napoleon. The Prussian order of Luise was instituted in her honour, and also the Luise foundation for the education of girls. A statue of Queen Louisa was erected in the Thiergarten at Berlin in 1880. See E. Engel, Konigen Latise, 1876: Hudson, Life and Times of Louisa, Queen of Prussia, 1874, and Lives by Horn (1883), Martin (1887), and Moffat (1906).

Louisburg, a tn. in Cape Breton Is., Canada, off the Atlantic coast, comntrance to the Gulf of 27 m. S.E. of Sydney.

more than a fishing ider the French had t trade in cod, and

was the strongest fortress in N. America. In 1758 Wolfe took L. and advanced to the capture of Quebec. It possesses a very fine harbour, employed for the winter export of coal. Pop. about 1600. See Bourinot's Memorials of the Island of Cape Breton, 1892.

Louis-d'Or, a French gold coin first issued by Louis XIII. in 1640, and discontinued in 1795. Its value varies at different times from 10 francs to 20 francs.

Louise, Caroline Alberta, Princess he fourth . married

ow ninth Duke of Argyll) in 1871. Princess Louise is a talented sculptor, the statue of Queen Victoria in Kensington Gardens being her work. She is also a member of the Royal Society of Water-Colour Painters.

Louisiade Archipelago, a group of islands at the south-eastern ex-tremity of British New Guinca, St. Aignan and Southeast being the largest. They are all of a mountainous nature and covered with vegetation. the inhabitants being very wild, and partaking of both Malayan and Papuan characteristics. The islands were discovered in 1606, and taken by the British in 1888. Alluvial gold has

been found. Louisiana, one of the S. central states of U.S.A., bordering the Gulf He died of Mexico, covering an area of 48,700 sq. m. It was admitted to the American Union in 1812. The sur-American Union in 1812. face of the state, generally, is not very much above sea-level, but there are extensive tracks of unburg-Strelitz, born at Hanover, and dulating ground in the northern in 1793 married the prince-royal of sections. Swamp lands form a large Prussia, later Frederick William III., portion of the great delta of the Missisand became the mother of Frederick sippi. The state has a large number William IV. and William III., after- of rivers, creeks, bayous, and lakes, wards emperor. She endeared herself and is thus well watered. The princito her people by her spirit and energy, pal river, after the Mississippi, is the semi-tropical and unhealthy in the lowlands, and the soil is exceedingly fertile, except in the extreme N. The chief manufacturing industries of the state are those of sugar and molasses; sugar, cotton, and rice being the staple agricultural products. The chief mineral products are rocksalt, sulphur, clay beds, and petroleum. Farming is a leading industry, the cultivated area being 16 per cent. of the total. The capital is Baton Rouge, and other important towns are New Orleans, Shreveport, and Lake Charles. Pop. (1910) 1,656,388. See Johnson's Highways and Byways of

the Mississippi Valley. Louis Philippe (1773-1850), King of the French. The eldest son of the Duke of Orleans, together with whom, at the time of the French Revolution, he gave up his title and assumed the name of Egalité. During the early revolutionary campaigns he fought for the republic, but finally fell under or the republic, but many ten under suspicion and was threatened with arrest. He fled to Austria, and did not again enter France until the Restoration. He was a teacher in Switzerland; he visited the U.S.A., and finally, about the beginning of the 19th century, settled at Twickenham He married, in 1809, the daughter of Ferdinand, the King of the Two Sicilies, and returned to France in 1815. He became exceedingly popular in Paris, and after the Revolution of 1830 was elected king, having first 1830 was elected king, having first taken the title of lieutenant-governor. During the early period of his reign France flourished exceedingly, but the country, and especially the politics, were exceedingly corrupt. Gradually there began to be a great outery raised against this, and force of circumstances drove the king to reactionary courses. The liberty of the press was restricted and triple the press was restricted, and trials were tampered with. The power of the king was great, but nevertheless the reforming party gradually in-creased. Twice had Louis Napoleon entered France as a pretender, but with no success. Attempts were with no success. Attempts were finally made to stamp out the reforming party, but this led to the Revolution of 1848. The Paris mob rose, and aided by the complicity of the army and the police were successful in compelling the king to abdicate, although he for his part promised redress, and dismissed his prime minister, Caizot. He fled to England where two years later he died at Claremont on Aug. 26.

Louisville, a city in Jefferson co., Kentucky, U.S.A., on the l. b. of the

Red R. Forests cover a great part of Ohio, 100 m. S.W. of Cincinnati. It the state, and the geological formatics occurred with New Albany and tions belong to the Tertiary and Jeffersonville by three fine bridges, Quaternary periods. The climate is and is an important river port. It is one of the greatest manufacturing cities of the S., and as a leaf-tobacco market leads the world. It has of manufactures oaknumerous tanned sole leather, pork packing, iron, and other leading industries. L. possesses several important buildings, among which are the custom-house, court-house, and city-hall, and its educational institutions include the university, Polytechnic Society of Kentucky, and law, medical, and other schools. Pop. (1910) 223,928.

Loulé, a fortified tn. of Algarve.

Portugal, 6 m. N. of Faro. It has copper and silver mines, and the principal industry is basket-making.

Pop. 23,000. Louping Ill, or Sheep Staggers, a common disease of sheep in Scotland and Northumberland, appearing in spring. The symptoms are a staggering, jerky gait, staring eyes, followed by convulsions, paralysis, and death. The disease has been investigated in recent years, notably by the late Professor Hamilton of Aberdeen, but the actual cause is still uncertain. Professor Hamilton attributed it to the presence of a coarse, rod-shaped bacillus in the fluid in the peritoneal cavity and in the intestines, but recent investigation suggests that this is merely a putrefactive organism. The application of half a ton of crushed salt per acre to pastures has greatly reduced the losses by the disease. Drenches of cultures from diseased animals have been administered with good results in Ireland.

Lourdes, a tn. in dept. of Hautes-Pyrénées, S.W. France, at the foot of the Pyrenees, on the r. b. of the Gave de Pau, 90 m. S.E. of Bayonne. It is divided into an old and new town, united by a bridge, leading to the church of the Rosary and the Grotto, with its spring of healing water, with which the present fame water, with which the present fame of L. is associated. This celebrated spring is credited with miraculous powers, and in 1889 a church was built for the accommodation of pilbuilt for the accommodation of pirgrims, about 500,000 of whom visit the place every year. The chief of the pilgrimages, known as the national pilgrimage, takes place in August. See G. Marc's Lourdes et ses environs, 1894: W. Leschner, The Origin of Lourdes, 1900; and Zola's Lourdes,

Cap. of the Lourenco dist., Portuguese ! E. Africa, in the N.W. of Delagoa Bay. It is the terminus of the Delagoa Bay Railway penetrating to Pretoria. It was founded as a factory by the Portuguese in 1544. The town has a good harbour and many fine buildings, and a gold-field was proclaimed in the district in 1890. Pop. about 9900.

Lousewort, see PEDICULARIS. Louth, a tn. in the Lindsey div. of 1 the R. Lud.

There are ruins of a

Cistercian abbey at Louth Park. Agricultural implements are manufactured, and there are also iron-foundries, breweries, brick-fields, etc. It communicates with the Humber by means of the Louth Canal (1763). Pop.

(1911) 9883. Louth, a maritime co. of Ireland in the prov. of Leinster, bounded E. by the Irish Sea. The surface generally is low and undulating, with a high mountain range in the N.E., bordering Carlingford Lough. On the coast are the watering-places of Carlingford and Greenore with Dundalk facing the bay of that name. The chief rivers are the Fane, Lagan, Glyde, and Dee, with the Boyne forming part of the S. boundary. The soil is good, and agriculture flourishes; cattle and sheep are reared, and oats, barley, flax, potatoes, and turnips are grown. The manufacture of linen is carried on, and the deep-sea fisheries and salmon fisheries are extensive, including oyster beds in Carlingford Lough. Passenger steamers run regularly from Greenore to Holyhead. The county is divided into six baronies, and has two parliamentary divisions. each returning one member. It is rich in ancient buildings and remains. The area of the county is 316 sq. m. Pop. (1911) 63,402. The tn. of Louth from which it takes its name has now passed into decay, and contains some fine ruins.

Loutherbourg, Phillips Jacques de (1740-1812), a French painter, born at Strasburg. His father, a miniature-painter, settled in Paris, and placed his son under the tuition of Tischbein and F. Casanova. L. gained universal admiration, and in 1768 he was admitted a member of the French Academy, and later appointed court. was admitted a member of the French building of the Tuileries the L. Academy, and later appointed court proper became a series of great painter to the king. In 1777 nainter to the king. In 177 settled in England, and designed

scenes and decorations of Drury Theatre. In 1781 he became an Among his most noted pictures The Defeat of the Spanish Armada, the L. which contained the library. The Fire of London, View of See Paris. Skiddaw, Landscape and Cattle, Lovat Simon Fraser, twelth Lord

by N. of Brussels, on the Dyle. There are many public buildings of note, amongst which are the town hall (1447-63), the church of St. Peter, the Salle de Frascati, and the new university, established in 1835. Brewing, distilling, and the manuf. of tobacco are chiefly carried on. Pop.

Louvière, La, a tn. in the prov. of Hainaut, Belgium, 10 m. W.N.W. of Charleroi. Has collieries and establishments for the manuf, of earthenware and railway material, 20.000.

Louviers, a tn. in dept. of Eure. France, one of the principal centres of French woollen manufs., 17 m. S.

of Rouen. Pop. 10,300. Louvois, François Michel Le Tellier, Marquis de (1641-91), a French statesman and war minister under Louis XIV., born at Paris. Turenne perceived his talents in the war of Devolution, and after the peace of Aix-la-Chapelle, he was set to reorganise the French army. He founded the military orders of merit, the Hotel des Invalides, and the French standing army. L. was one of the greatest of the rare class of war ministers. See Rousset's Histoire de Louvois, 1872.

Louvre, or Louver (Fr. l'ouvert, the opening), an ornamental turret on a roof for the escape of smoke or steam. Nowadays they are frequently used in the shape of sloping boards overlapping each other with a space be-

tween for ventilation.

Louvre, The, the greatest of the modern palaces of Paris, forming a square of 576 ft. by 538 ft., was connected with the Palace of the Tuileries by a great picture-gallery overlooking the Senie and 1456 it. long. Between the two palaces lay the Place du Carrousel, and Napoleon III, further connected the two palaces on the northern side making them into one vast palace. The L. is erected on the vast planee. The L. is elected on the site of an old 13th-century chateau; the first part of the modern structure, the S.W. wing, was built, after the designs of Pierre Lescault, in 1541; while the main portion of the square was built by Louis X.IV. after the design of Claud Perrault. After the

71, which destroyed burnt the corner of

Skiddaw, Landscape and Cattle, Lovat, Simon Fraser, twelfth Lord (c. 1667-1747), a Scottlish Jacobite. Louvain, or Löwen, a city in the He was a born traitor and deceiver, prov. of Brabant, Belgium, 15 m. E. and though professing loyalty to the

Stuarts, one of his first acts on leaving college was to raise 300 men from his clan to form part of a regiment in the service of William and Mary. In 1698 proceedings were taken against him and his clan, and he was declared guilty of treason and fled to France. On his father's death, the following year, he assumed the title of Lord L. In 1702 he was at the court of St. Germain, and one of his first steps towards gaining influence in France was to announce his conversion to the Catholic faith. In 1713, at the request of his clan, he returned home, and though arrested in London (1714) he was liberated, and by siding with the government, obtained a pardon. In the rebellion of 1745 he made false professions of fidelity to the government, and after the battle of Culloden was forced to retreat to the Highlands to seek concealment. Although broken down by disease and old age, L.'s mental resources did not fail him. He called together the Jacobite leaders and proposed that they should raise 3000 men, thus rendering their mountains impreg-nable, and force the government to grant them advantageous terms. The project failed, however, and after innumerable hardships and wanderings, L. was finally arrested on an island in Loch Morar, and was tried and exceuted in his eightleth year, on Tower Hill, March 1747. L. is an example of the incarnation of the clan system at its worst. He was a rufilan, traitor, and hypocrite, though at the same time a finished courtier and good scholar. One of his greatest private outrages was the rape and forced marriage of the widow of the tenth Lord L., with the view of securing his own succession to the estates. See Alemoirs of Lord Loval; J. H. Burton, Life of Simon, Lord Loval; A. Mackenzie, History of the Frasers of Loval, and Mrs. A. T. Thomson, Memoirs of the Jacobites, 1845-46.

Lovat, Simon Joseph Fraser, sixteenth Baron (b. 1871), succeeded to the barony in 1887. He served in S. Africa in the early stages of the Boer War, and raised a corps, designated 'Lovat's Scouts,' with hinself in command, whose services marriage of the widow of the tenth

himself in command, whose services were favourably reported upon by Earl Roberts and Viscount Kitchener. On returning from Africa he raised two yeomanry regiments, which form Highland part of the present Mounted Brigade. H His 'Scouts' now form the 55th company of the Imperial Yeomenry. In 1900 Lord Lovat received the D.S.O., and two years later was made a C.B. and

C.V.O. for his services.

tender feeling upon one particular person, most commonly the affection existing between parent and child, affection between that persons of opposite sex which forms the normal basis of marriage. It manifests itself in a desire for the welfare of the beloved object, in a longing for his presence and delight in his approval, and sorrow at parting. The term is less often used for the animal justinct between the sexes and its gratification, with its analogues in the lower animal world. No word has so little preciseness of meaning and so great an elasticity of definition. Leibnitz's definition that to L. is 'to be carried away to take pleasure in the well-being or happiness of the loved being, restricts the emotion to protecting L. Socrates distinguishes between heavenly and vulgar L., and utterly condemns the latter, and Plato follows in his steps. 'Platonic love' is the affection between two persons of opposite sex that is free from all sexual desire, that is a striving after the infinite and a lowly adoration of perfect beauty. Aristotle, scarching after the psychological basis of the emotions, found in L. not a metaphysical principle, an aspiration after perfect beauty, but a natural physical bond between but a natural physical bond between the sexes designed for the procreation of children. See Bain's The Emotions and the Will, 1859, and Mental and Moral Science, 1868; Michelet, L'af-franchissement moral parle vérilable amour, 1858; Krafft-Ebing's Psycho-pathia Sexualis (Eng. trans., 1899); Parvirie Pacceri of Mars 1871 and Darwin's Descent of Man, 1871: and Schopenhaur's Metaphysics of Love.

Lovedale, an educational institution and mission station in Cape of Good Hope, 30 m. N.W. of King William's Town. Founded in 1841 by Scottish missionaries. Its special object is the training of teachers for

native schools.

Lovelace, Richard (1618-58), an English lyrical poet, born at Wool-wich, Kent. He spent his fortune wich, Kent. in support of the royal cause, and though he could have shone at court, preferred warfare. In 1615 he took up arms on the king's behalf, and the following year was imprisoned till the king's death, thus obtaining leisure for verse-making. During his imprisonment he wrote the song by which he is best remembered, To Allhea, in Prison, and collected and revised for the press a volume of occasional poems. In 1649 they were published under the title of Lucasta. He also wrote, when quite a young man, a comedy and a trugedy, entitled respectively, The Scholar, and The Soldier. The last ten years of his Love. In its most common use The Soldier. The last ten years of the term denotes a concentration of life were passed in obscurity.

volume of his Posthume Poems, was published in 1659 by his brother, and an edition of collected poems by

n Engfriend of Coleridge and Southey. His early of Colorings and Southey. His early death prevented the realisation of the 'pantisocratic' project entered into with these poets. In 1745, in conjunction with Southey, L. published Poems by Bion and Moschus.

Lover, Samuel (1797 - 1868), novelist and poet, achieved fame in 1826 with the well-known ballad of Rory O'More, which was, and is still, very popular. His best novel is the farcical Handy Andy (1842), which achieved a great success, and this almost alone of his works of fiction is still read, but now principally by boys, Rory O'More, A National Romance (1837), and Treasure Trove (1844), being almost entirely forgotten. He wrote many songs and several plays, and one of the worst volumes of il Rhimes · by Bayle

Lovetch, or Lovatz, a tn. of Bulgaria, on the Osna, 20 m. S.S.E. of Plevna.

Pop. 7000.

Low, Sir John (1788-1880), a general in the Indian army and political ad-ministrator, born near Cupar, Fife-shire. In 1804 he obtained a Madras cadetship and the following year was appointed lieutenant in the was appointed licutenant in one let Madras Native Infantry, going through the various grades, and trising in 1867 to the rank of general. During his early years he saw varied military service, and at Lucknow and Hyderabad he had the control of large nyaerupad ne nad the control of large local contingents of native troops. He received the E. India War medal with clasps, the British War medal for Java, and the Mutiny medal.

Low, Sir Robert Cunliffe (1838-1911), a British general, born in Fifeshire. In 1854 he received a commission as cornet in the Indian

mission as cornet in the Indian army, and was attached to the 4th Bengal Cavalry. During the Indian Mutiny he was present at the siego and fall of Delhi, and was mentioned in despatches. During the Afghan War (1879-80) Lord Roberts made him director of the transport service, and for his services on the march from Kabul to Kandahar he was rewarded with the C.B., medal with clasp, and bronze star. In 1886 tioned in despatches. During the with clasp, and bronze star. In 1886 he was detached for service in Upper and had the command of a brigade, being rewarded with a K.C.B. for his services. In 1895 he was nomine*: of the Chitra

Low Archipelago, Paumotu, or Tuamotu (Pearl or Dangerous Islands), the most easterly group of the Polynesian Is., in the Pacific, consisting of about eighty low coral islands with an area of 350 sq. m, of which there are rich pearl-fisheries. They were discovered in 1606 and officially annexed to France in 1881.

Low Countries, a dist. in N. Europe,

comprising Lowe, Ši

(1830 - 1908).born at

served in the Crimea (1855-56), the Indian Mutiny (1858-89), the Zulu War (1879), and the Boer War (1881). Made his reputation in the Egyptian War of 1882, when he became a majorgeneral and commander of cavalry in the field. He was four times mentioned in despatches, received the thanks of both houses of parliament, and was made a K.C.B. in 1882.

Lowe, Edward Joseph (1825-1900), an English botanist, born at High-field, near Nottingham. In 1846 he published a Trealise on Atmospheric

ie first to point f meteors to a

In 1853 he

issued the first parts of the well-known Natural History of British and Exotic Ferns, followed shortly by Brilish Grasses, Beautiful Leaved Plants, New and Rare Ferns, and Our Native Ferns. He was a fellow of the Royal, Royal Astronomical, Geo-logical, Linnean, and Royal Horti-

cultural societies.

Lowe, Sir Hudson (1769-1844), an English general, born at Galway. He entered the army in 1787, and in 1793. after the outbreak of the war with France, saw active service in Corsica, Gibraltar, Minorca, and Egypt. In 1812 he returned to England, and three years later was appointed custodian of Napoleon and governor of St. Helena, a post which he retained till Napoleon's death in 1821. Charges of rigour and even cruelty to his prisoner have been brought against him, though most of them have been completely refuted. From 1825-30 he commanded the forces in Ceylon. Sec W. Forsyth, History of the Caplivily of Napoleon at St. Helena, 1853; R. C. Seaton, Napoleon's Captivity in Relation to Sir Hudson Lowe, 1903; and Rosebery, Napoleon, the Last Phase.

1900. Lowe, Robert, first Viscount Sher-

brooke, see SHERBROOKE.

Lowell, a city of Massachusetts, U.S.A., on the Merrimac R., 26 m. V. of Boston. The river falls great hydraulic power. There number of cotton and woollen

1896 was pro and G.C.B. factories and manufactures of leather, paper, and iron goods. The chief institutions are a public library, textile school, state normal school, and Roger Hall school. Pop. (1910) 106,294.

Lowell, Abbott Lawrence (b. 1857), president of Harvard University, U.S.A., elected in 1909. His influence has been since then strongly felt in the educational world of America, and more modern methods of education have been pursued at Harvard. Professor of history for many years at this university and of great reputa-tion as a historian. His best-known book is The Government of England. He is descended from Judge Lowell of New England fame, and is a distant connection of the poet Lowell. renowned for her beauty and culture in Bostonian society.

Lowell, James Russell (1819-91), an American poet born at Cambridge, Massachusetts, son of the Rev. Charles L. He was admitted to the bar, but took little interest in his profession, and was always contributing poems and prose articles to various magazines. He was attracted to the steady pursuit of literature largely through the influence of Maria White, a poetess of delicate power, to whom he became betrothed in 1840. The outcome of this was a volume of poems entitled A Year's Life. Three years later he published a collection of his poems, and Conversations on some of the Old Poets. He married in 1845, and went to Philadelphia for a time, where he became editor of The Pennsylvania Freeman, a fortnightly journal devoted to the anti-slavery cause. In 1848 he published a further edition of his poems with some new ones added, including 'To the Dande-lion,' 'The Changeling,' 'A Fable for Critics,' 'The Vision of Sir Launfa.' romantic story suggested by the Arthurian legends, and one of his bestknown poems, and 'The Biglow Papers,' a reprint of dialect poems furnished to the newspapers of the day, satires of an effective nature, which attracted a great deal of atten-In 1851 L. sailed for Europe, with his wife, whose health was failing, and spent a year, chiefly in Italy, in study and travel. Mrs. L. died in 1853. Two years later, L. became professor of modern languages and literature at Harvard, and spent a couple of years in Europe to prepare himself more fully, being appointed to the chair at Harvard in 1857. In

this year he married en secondes noces

Miss Frances Dunlap. From this time

My Study Windows, Among my Books, etc., all have descriptive and critical articles of permanent value and charm. Latest Literary Essays appeared in 1892. See H. E. Scudder. Life, 1901.

Lowell, Percival, brother of Abbott Lawrence L., and an astronomer of some repute. Author of Mars and its Canals, and other astronomical treatises, which raised controversial dispute. His private observatory at Flagstaff, Arizona, is the second largest in America.

Lowell Institute, an educational establishment of Boston, Massachusetts, U.S.A., endowed by John Lowell, jun., who died in 1836. It provides mother was the famous Miss Lawrence, for free public lectures of two kinds, viz. popular, covering almost every subject, and advanced, of a more

abstruse and crudite nature.
Lowenberg, a tn. in Silesia, Prussia.
26 m. W.S.W. of Liegnitz, on the
Bober. Chief trade is in textile manu-

factures. Pop. 6341. Lower Austria, sec Austria, Lower. Lower Merion, a tn. in Montgomery co., Pennsylvania, U.S.A., close to Philadelphia. Pop. (1910) 17,671.

Lowestoft, a seaport and municipal bor. of Suffolk, England, 118 m. N.E. of London. It has rapidly developed into a favourite holiday resort, and its fisheries are important. It is its fisheries are important. within easy access of the Broads. The older part of the town is built on a cliff overlooking the sea, while the modern part has a fine esplanade 800 yds. long and two fine piers. There are various industrial establishments, and shipbuilding is carried on. Pop. (1911) 33,780.

Lowicz, a tn. in Poland, Russia, 48. W.S.W. of Warsaw. It has a technical school and a gymnasium.

Pop. 12,500.

Lowland, a general term in physical geography for any broad expanse of land with a low level, not rising more than 600 to 1000 ft. above the sea. The term is applied to a region of depression in the interior of a mountainous region, or in fact to any region that presents a contrast to a highland, such as the Ls. of Scotland. The area of Ls. is about 15,500,000 sq. m., or nearly three-tenths of the total land-surface, and they probably support at least six-tenths of the in-habitants of the world. They present every variety of vegetation, and where climate and drainage permit are easy to exploit and traverse. There is 55 per cent. of L. in Europe. 36 per cent. In Australia, and only about 15 per cent. in Africa, mainly in the N. and W. of the Sahara. till 1862 he was editor of the Atlantic

Monthly. He was United States in the N. and W. of the Sahara.
minister in London from 1880-85. Low Latin, properly the Latin of
His essays are marked by great the middle ages, but more often used
literary refinement. Fireside Travels, in a general sense for the Latin spoken Low Latin, properly the Latin of

and written after the fall of the Divine Authority of the Old and New Roman empire as well. Deteriora- Testaments, 1692, and Directions for begun even in Cicero's time, but it rapidly grew from bad to worse until the different divisions of the empire formed distinct varieties, finally developing into the modern Romance tongues.

Lowndes, Thomas (1692-1748), an English astronomer, founder of the

marshal of S. Carolina in 1725, but filled this post by deputy.

illied this post by deputy.

Lowndes, William Thomas (c. 1798-1843), an English bibliographer, to whom we owe The Bibliographer's Manual of English Literature, the first systematic work of the kind (2nd ed. 1857-64), and The Brilish Librarian, 1839, designed to supplement his early manual but uncount. ment his early manual, but uncom-

pleted.

Low Sunday, the first Sunday after Easter, so called because it ends the octave of the Easter festival, some parts of the solemnity of which great feast were repeated on this day, thus celebrating it as a festival itself, celebrating it as a festival itself, though of a lesser order than that of Easter-tide. Probably 'Low' is a corruption of 'Laudes,' the first words of the sequence of the day being 'Laudes Surdary,' thus naturally 'Laudes Sunday' corrupted into 'Turn Surday into ' Low Sunday.

Lowth, Robert (1710-87), an English divine and Orientalist, born at Winchester. In 1741 he became professor of poetry at Oxford, and in 1750 was appointed to the arch-deaconry of Winchester. He became rector of E. Woodhay two years later, and in 1755, prebendary of Durham, and rector of Sedgefield. He puband rector of Sedgefield. He pub-lished his Life of William of Wilseham in 1758, and A Short Introduction to English Grammar in 1762. He was consecrated Bishop of St. Davids in 1766, soon afterwards being trans-ferred to Oxford, and in 1777 becom-ing Bishop of Loudon. L. was one of the first to treat the Bible poetry as literature, and in 1778 wrote Isaiah, n new Translation, with a Preliminary Dissertation, and Notes, Critical, Philological, and Explanatory. See Life and Writings of Bishop Louth, 1787, and an edition of his Popular

tion in the form of the language had the Profitable Study of Holy Scripture. Lowther, James (1840-1904), an English politician, born at Leeds. Called to the bar in 1864, but never practised. He entered upon his par-liamentary career in 1865 as M.P. for York, and was re-elected at the General Election of 1868, opposing Gladstone's government in parlia-ment, Under Disraeli's administrament. Under Disraeli's administra-tion (1874) L. was Under-Secretary for the Colonies, in 1878 being transferred to the Irish Office as Chief Secretary, which appointment he held till the General Election of 1880, when he lost his seat at York. In 1888 he was again returned to parliament for the Thanet division of Kent, and retained this seat till his death in 1904. L. was a sportsman as well as politician, and a prominent member of the Jockey Club.

Lowther, James William (b. 1855), an English politician and Speaker of the House of Commons. He was called to the bar in 1879, and in 1883 was returned to parliament as a Conservative for Rutland. Since 1886 he has represented the Penrith division of Cumberland. In 1891 he was Under-Secretary for Foreign Affairs; in 1895 chairman of Ways and Means, and Deputy-Speaker, and in 1905, on the retirement of Mr. Gully, he was elected Speaker of the House of Commons.

Loxa (Spain), see Loja.

Loxia, see CROSSBILL. Loyalists, United Empire, the name applied to those who remained loval to the British government at the time of the revolutionary war in America. They migrated to Canada, after the United States had secured independence, and formed the greater part of the population of Ontario and New Brunswick, which they founded. See Van Tyne. The Loyalists in the American Revolution, 1902

Loyalty Islands, a group of islands in the Pacific, E. of New Caledonia, consisting of three large islands, viz. Lifu, Maré, and Uca, and several smaller islands, having a total area of about 800 sq. m. They are an administrative dependency of New Caledonia, and have belonged to France since 1864. Bananas are France since 1864. France since 1864. Bananas are largely cultivated, and sandal-wood is exported. The climate is healthy.

Works, 1843.

Lowth, William (1660 - 1732), a theologian, born in London. In 1699 he was presented to the benefice of Buriton with Petersfield, Hants, which living he held till his death.

Lis chiefly remembered by his chiefly remembered by his chiefly remembered by his also published Vindication of the last the court of Ferdinand and Isa-

which, however, he was obliged to renounce in 1521, owing to a wound received at the siege of Pampeluna. The accident made him lame for life. It was during the wearisome con-valescence that his nature under-went one of those curious metamorphoses which affected Francis of Assisi, and to a certain extent Tolstoi. In the army he had been Tolstoi. In the army he had been distinguished for his courage and force of character, but on the other hand he had freely gambled and amused himself with women. When his sickness left him, the ardour of his nature was animated only by the highest religious aspirations, after a period of mental unrest, during which he practised fasting, scourging, and other austerities, and was a victim to a host of morbid sentiments. he eventually found his way as a pligrim to Jerusalem (1523). This journey was followed by years of patient study at Alcala, Salamanca, and from 1528 at Paris. In 1534 a band of seven students, among them Francis Xavier, Diego Laynez, gathered toget

ship of L., in to on Montmartre, and having taken the vows of chastity and poverty, swore either to prosecute a ministry in the Holy Land or to serve the pope where he directed. In 1537 Ignatius was ordained priest Venuce; in 1540 he obtained the sanction of Pope Paul III. for his Society of Jesus, and the following year he was chosen its first general, an office he held till his death, although again and again he expressed his longing for a life of solitude and prayer. His face is a key to his character; the lofty forehead suggests that intellectual grip which enabled him to frame his Exercitia Spiritualia and those Constitutions which are to this day the basis of the organisation of his society (see JESUITS). He was canonised in 1622, and his day is July 31.

Loyson, Charles, see HYACINTHE, PERE.

Lorère, a southern dept. of France, French, 186 formerly part of the old prov. of but once me Language doc. The surface is exceed N. German ingly mountainous and is traversed is a rival of Hamburg and Bremen as by the Cevennes and other ranges. A a German emporium, having a good peak of the former attains an elevalar larbour and quays, and ice-breakers tion of 5600 ft. On the mountain to keep the river open. It trades slopes, looking towards th valley, cattle and sheep ar and the olive, vine, and are cultivated. The rearing worms and the manuf, of cheese are a rouse particular important industries,

are one of the leading

mineral wealth consists

bella, he embraced a soldier's career, copper, and antimony. Mende is the capital of the dept. Area 1996 sq. m. Pop. 122,738.

Luang-Prabang, a fortified tn. of French Indo-China, on the l. b. of the Mekong, situated in the midst of a forest of palm trees, and surrounded Pop. 12.000. by mountains.

Luapula, see Congo River. Lubao, a pueblo of Luzon, Philip-pine Is., 5 m. S.W. of Bacolor, situated in a rice and sugar district. Pop. 20,000.

Lübben, a tn. of Prussia in Brandenburg, 47 in. S.E. of Potsdam, on the Spree. Pop. 7802.

Lubbock, Sir John, see Avebury. Lübeck: 1. A German principality, part of the grand-duchy of Oldenburg, situated on an arm of the Baltic, between Holstein and Mecklenburg-Schwerin. It contains the city of Lübeck, the town of Travemunde, forty - nine villages, and country districts. Pop. 41,272. 2. The state, lies in the lowlands of the Baltic, lies in the lowlands of the Baute, watered by the Trave and its tributories. The soil is fertile, except the forest lands (14 per cent. of area), and produces rye, wheat, potatoes, hay, and much fruit. Trade centres in the city of L. The free state has t consisting (

Senate of (ii.) the

120 elected members. 1. nas one vote in the Bundesrat, and sends a delegate to the Reichstag. Pop. 116,533. 3. A free city, one of the three remaining Hanse towns, formerly head of the Hanseatic League. 40 m. by rail from Hamburg. It is a grand ancient city, containing five Gothic churches, full of medieval works of art: the Rathans, the Schiffershans, medieval gates (Hol-stentor, Burgtor), the hospital of the Holy Ghost, and a valuable museum. L. was founded in 1140 and quickly gained commercial importance; was ceded to Saxony in 1158, obtaining its first charter from Duke Henry; conquered by Denniark, 1201; regained liberty and was made a free city by Frederick II.; sacked by the ned

d other

.620. :. 1729). r. born

He studied nt Amunder Gerard de Lairesse,

n went to Italy and Florence.

younger brother, Christopher Lubinecki (1659-1729), was born Stottin. He entered the school drian Backer at Amsterdam, and a screw-plug. Liquid L. are used for painted historical subjects and por-

Lubienietski, Stanislaus the Younger (1623-75), a Polish Socinian and astronomer, born at Cracow, whose fame chiefly rests on his Theatrum Cometicum, giving a full and detailed account of the one hundred and fifteen comets which appeared from the Deluge to his own time. He became a minister of the church at Lublin, but was exiled on account of his theo-logical views, and went to Hamburg, where he spent the remainder of his life. Besides the above-mentioned work he wrote a History of the Polish

Reformation, 1685. Lübke, Wilhelm (1826-93), a German art historian, born at Dortmund. From 1861-66 he was professor of art and history at Zürich, and then held a professorship in the art schools of Stuttgart. He wrote numerous valuable works, including History of Art, and History of Sculp-

lurc.

Lublin, a gov. of Russian Poland, bounded N. by Siedlee, E. by the R. Bûg, S. by Galicia, and W. by the R. Vistula. About one-third of its surface is oak, beech, and lime forest, less than one-twelfth pasture land, and the rest arable. In some parts the soil is fertile, black earth, but other parts are sandy. Rye, oats, wheat, barley, and potatoes are the chief crops; flax, peas, millet, and beetroot are also cultivated, and horses are bred. The chief industries are distilling and sugar-making; chief exports grain, wool, and wood. Area 6500 sq. m. Pop. 1,436,600. city has a pop. of 62,000. The

Lubni, or Lubny, a dist. and tn. of Poltava gov. S.W. Russia, on the Sula, 75 m. W.N.W. of Poltava. It has a botanical garden, and trade in

lams. Pop. 10,000.

Lubricants (Lat. lubricus, slippery), substances insinuated between moving surfaces to reduce the friction between them and prevent their becoming hot. They may be solid, semisolid, or liquid. The first variety, such as graphite or plumbago, seem to act as rollers or fill up roughness in the surfaces in contact, thus coating

On returning to Germany he was consist of various animal, vegetable, appointed painter to the Elector of and mineral oils, often mixed and Brandenburg, and director of the thickened or solidified with scapes. Academy. He painted chiefly his Semi-solid greases are used for rail-torical pictures and landscapes. His way waggon-axies, and the bearings vonumer brother. Christopher Lub. ichinery, being by a syringe

> all bearings which must run with as little friction as possible, and for all high-speed bearings. Sometimes the rubbing surfaces work in a bath of the L., e.g. in small engines for motorcars or road waggons. For individual bearings, e.g. of railway vehicles, a pad of cotton, worsted, and horse-hair is saturated and pressed under the side of the journal, which is thus kept constantly wetted with oil. Often the L. runs in grooves and oilways cut in the bearings, and various other contrivances are used. A L. should have sufficient viscosity and oiliness, and must not be volatile, or decomposed by heat, or congeal with cold; it should not be oxidised by exposure to the air or acid so as to affect the metal of the bearings, nor must it be easily inflammable, but ought to be able to carry off the heat generated by the inevitable amount of See Archbutt and Deeley. friction. Lubrication and Lubricants; Hur Lubricating Oils, Fats, and Greases.

Lubricating Oils, Fats, and Greases.
Lubricators, the mechanical contrivances by which lubricants are supplied to rubbing surfaces. For applying solid lubricants (tallow, lard, etc.), a simple box is used above the part to be lubricated, with a hole of a size adjusted to the viscosity of the material and the freedom with the material and the freedom with which it is to run. For the animal and vegetable oils, the usual form is a brass or glass vessel of varying capacity, fastened to the journal-box and having a hole at the bottom through which a vertical tube rises nearly or quite to the top of the oilcup. A channel leads from the cup to the bearing to be oiled, and a leader of lamp-wick, often twisted round wire shaped ft, is inserted partly into the tube, the rest falling into the oil, so that the wick acts as a siphon. Where continuous lubrication is required, an oil-pump is used, drawing the oil from a reservoir and forcing it through the journal, or small spoons are contrived to dip up the oil and pour it on the bearing. Howe invented a crank-pin L., with oil-cup screwed to the strap of the connecting-rod from beneath; and Dreyfus a needle oil-cup, usually of glass, with then with a soft, slippery material, a hole at the bottom for the wire-They are used chiefly for wood and reedle to pass. When the machinery rough iron bearings, and all very hard is in motion, the slight vibration of materials. The semi-solid and liquid this needle is enough to let a small L. are much more important, and amount of oil pass. For lubricating steam-engine cylinders, where the modern times the compartimento of pressure of the steam is an opposing force, a small force-pump is often used, with or without a reservoir attached; or else a simple oil-reservoir connected above and below with the steam-pipe and steam-chest. shafting, reservoir-boxes or 'self-oiling boxes' are sometimes used, where the oil is used over and over again. See Thurston, Friction and Lost Work in Machinery and Mill Work.

Lubrin, a tn. of Almeria prov., Spain, 9 m. from Vera, with marble quarries. Pop. 6600.

Luca della Robbia, sce BOBBIA.

Lucan, a par. and small tn. of Dublin co., Ireland, on the Liffey, 7 m. W. of Dublin. Pop. (1911) 1100. Lucan, George Charles Bingham, Earl of (1800-88), an English soldier, born in London. He entered the army in 1816, volunteering with the Russian forces in the Turkish campaign of 1828. He was in command at Balaclava, where the Light Brigade entered upon their famous charge, but was not generally held to be re-sponsible for the order which resulted in the disaster. In 1858 he was made lieutenant-general, and in 1887 fieldmarshal. See Kinglake's The Invasion of the Crimea, 1863-87.

Lucan, Marcus Annæus (Lucanus) (c. 39-68 A.D.), a Roman epic poet, born at Cordova, Spain, nephew of the philosopher Seneca. Educated at Rome, he at first won the favour of Nero, who then grew jealous of him. and forbade him to recite in public.
L. immediately joined Piso's conspiracy, but was betrayed and induced to turn informer by promises of pardon. Having revealed his accomplices, even including his own mother, he was condemned to death, but forestalled a traitor's death by suicide. His only extant work is the famous epic Pharsalia, dealing with the struggle between Cæsar and Pompey, after the crossing of the Rubicon. There are editions by Grotius (1614). Weber (1821-31), Haskins (1889). French, German, and English versions have appeared. See Weise, Vila, 1835; Obermeier, Sprachgebrauch des Lucanus, 1886;

Spracagebrauch aes Lucanus, 1886; Palmer, Apologia pro Lucano, 1704; Meusel, Dissertationes (vol. ii.). 1767; Voltaire, Essai sur la Poésie Epique. Lucania, an ancient div. of S. Italy, between the Tyrrhenian Sea and the Gulf of Tarentum, separated from Campania by the R. Silarus (N.) and from Entitium by the R. Laus (S.) from Bruttium by the R. Laus (S.). The original inhabitants were subdued by the Samiltes (c. 300 n.c.), in turn subjected by the Romans (272). Sybaris, Heraclea, Thurii, and Pæs-tum were among the chief cities. In

modern times the compartimento of Basilicata (prov. of Potenza and Salerno) represents L. See Smith, Dict. of Greek and Roman Geog., ii.; Harper, Dict. of Antiquities.

Lucarius, Cyril (c. 1572-1637), a Greek Protestant prelate, native of Candla (Crete). He visited Italy and Germany and studied the Reformed doctrines. He became patiench of doctrines. He became patriarch of Alexandria (1602), of Constantinople (1621), and aimed at reforming the Greek Church on Calvinistic lines. For this he was deposed and exiled to Rhodes. L. was recalled, but again expelled by his orthodox opponents and the Jesuits. His Confessio appeared in 1629. He was probably slain by the Sultan's janissaries. See Moréri, Dict. Historique; Aymon, Lettres Anecdotiques de Cyrille-Lucar; Herzog-Hauck, Realencyklop, 1902; Pichler, Life, 1862.

Lucarne, see DORMER WINDOW. Lucas, Edward Verrall (b. 1868), an English author, and editor and bio-grapher of Charles Lamb. Among of Verses for Children, 1897 and 1907; The Open Road, 1899; Three Hundred Games and Postimes (with 1997) and 1900. Window while Hundred Games and Pastimes (with Mrs. Lucas), 1900; Wisdom while You Wait (with C. L. Graves), 1903; Highways and Byways in Sussex, 1904; A Wanderer in Holland, 1905; Fireside and Sunshine, 1906; Listener's Lure, 1906; Character and Comedy, 1907; A Swan and her Friends, 1907; Over Bemerlon's, 1908; Anne's Terrible Good Nature, 1908; Good Company, 1909; Mr. Ingleside, 1910; Old Lamps for Nev, 1911; A Wanderer in Florence, 1912; London Lavender, 1912.

Lucas, John Seymour (b. 1849), an English historical and portrait painter, born in London. He received his training at St. Martin's School of Art, and entered the Royal Academy in 1871. In 1886 he became an associate, 1871. In 1898 an R.A. His first picture, the 'Apothecary' from Romeo and Juliet, was exhibited in 1872. His best works include: 'The Burgomaster,' 1877; 'Armada in Sight,' 1880 (representing Drake finishing his game of bowls on Plymouth Hoe);
'Spy in Camp,' 1882; 'Whip for Van
Tromp,' 1883; 'After Culloden,' 1884
(purchased by the Royal Academy);
'Eloped'; 'The Smoker'; and 'Peter
the Great at Deptford.' He was commissioned by King Edward to paint
the reception of the Moorish embassy in 1901,

Lucas van Leyden (1494-1533), a Dutch painter, born at Leyden, contemporary and rival of Albrecht He studied under Cornelis Dürer. Egelbrechtsen, and was a celebrated engraver early in life. In 1514 he

settled in Antwerp, and was elected | serves as a screen to receive the rays a member of the Guild of St. Luke. His best-known paintings include 'The Last Judgment,' 'St. Peter, Martyr, 'Christ Healing the Blind Man of Jericho,' a 'Card Party,' 'Virgin with Saints,' etc. eminent as an engraver for his skill in grouping figures. See Evrard, Lucas de Leyde et Albert Dürer, 1883.

Lucayos Islands, see BAHAMAS. Lucca: 1. A prov. of Tuscany, Italy, bordering on the Gulf of Genoa. Area 558 sq. m.; pop. 332,227. 2. Cap. of above, on the Serchio, 10 m. N.E. of Pisa. It contains the famous 11th century cathedral of San Martino, with valuable paintings and antiquiseveral churches of Carrara marble, the Palazzo Provinciale, and two academics. There are remains of a Roman amphitheatre, and to the S. of the tn. an aqueduct with 459 arches. 'Lucca l'industriosa ' manufactures relevets, silks, and other textiles, glass, paper, inlaid work, and cigars. Pop. (com.) 76,037. There have been bishops since 347 a.D., and L. was made an archbishopric without suffragans (1726). The ancient Luca is mentioned by 218 B.C. In 177 the Romans founded a Latin colony there, and it was a municipium by 90 B.C. L. was was a municipium by 90 B.O. L. was annexed to the kingdom of Italy in 1860. The Bagni di Lucca (Bagno a Corsena) are in the Lima valley. Sce Mazzarosa, Storia di Lucca, 1833; Ridolfi, L'Arte in Lucca . . Indolfi, L'Arte in Lucca . . . , 1882; Del-Carlo, Storia popolare di Lucca, 1877; Dent's Mediæval Towns Series.

Lucena: 1. A tn. of Cordova prov., Spain, on the Cascajar. Woollen and linen fabrics, pottery, watches, and metallic wares are manufactured. Fine horses are bred, excellent red wines and brandy produced. Pop. 21,300. 2. A small tn. of Castellon de la Plana, Spain, 45 m. from Valencia. Pop. about 3800.

Lucera, or Luceria, a tn. of Foggia prov., S. Italy, 11 m. W.N.W. of Foggia. It has a 13th-century castle, a medieval cathedral (once a Sara-cenic mosque), and a fine espicopal palace. The silk trade thrives. Pop.

17,500. Lucernal Microscope, an optical instrument invented by Mr. George Adams, and so-called because the of the object observed is thrown on a screen by the rays of light from a lamp (Lat. lucerna). The instrument consists of a hollow pyramidal wooden box; a tube carrying the usual system of lenses for smaller end,

the observer.

of light which are reflected from the object. The latter is in a small frame, which is placed in a groove made for the purpose immediately beyond the tube containing the lenses. The box is mounted on a brass stand, and has its axis horizontal. An Argand lamp is used to give the required light; it is placed beyond the object, and the light after -sphere

mirror. the obi

light in passing through the lenses, a highly magnified image of the object

is formed on the screen. Lucerne: 1. A canton of N. Central Switzerland, next in importance to Zürich and Bern. The surface in the N. is mountainous, but the soil is generally fertile. Its area is about 580 sq. m., and about four-fifths consists of pasture land. Grain, flax, hemp. and potatoes are produced, and the manufacture of cheese and condensed milk is important. Pop. 166,782 2. The cap, of the canton, and one of the most popular tourist centres in Switzerland. It is situated picturesquely on the banks of the Reuss as it issues from the lake, and is 24 m. S.S.W. of Zürich. To the S. of the city towers Mt. Pilatus (7000 ft. above sea-level), while on the E. rises the famous Rigi. Amongst the numerous features of interest are the celebrated rock, the 'Lion of Lucerne, carved by Thorwaldsen, as a memorial to the Swiss Guards who fell Paris (1792); the Hofkirche; glacier garden; and the town hall dating from the 17th century. L. has only a small trade, and manufactures some silk and iron-ware, the accommodation of tourists being the chief business of the inhabitants. Pop.

39<u>,</u>152. Lucerne, Lake of (Vierwaldstätter See, Lake of the Four Forest Cantons), one of the most lovely and cele-brated of European lakes, situated in the N. central part of Switzer-land. Its greatest length is 23 m., is about and its average breadth 2 m.; greatest depth, 700 ft. altitude is 1435 ft., and it is in the

shape of an irregular cross.

Lu-chu Islands (or Liu-kiu), see LOO-CHU.

Lucian (Aormarós), (c. 120 - c. 190 A.D.), a famous Greek writer (of the 'silver age') and free-thinker of the Christian era, a native of Samosata. He travelled in Greece, Italy, and Gaul, settled at Antioch (160), and then moved to Athens. Many of his best works were written between the lenses and 160-80. In the reign of Marcus Aurer is a plate of llus. He is chiefly noted as a satirist, glass, roughened on one side, which and one of the world's greatest wits. 160-80, in the reign of Marcus Aure-

Among his numerous productions ended on Julian's edict (362). may be mentioned: Θεών Διάλογοι refused to recognise as (twenty-six dialogues of the gods); Neκρισοι Διάλογοι (of the dead) Levis Έλεγχόμενος; Zevs Τραγωδός; Βίον Πρασις; Ελιονόρες Συμπόσιον; Charon; Menippus; Demonax; Bis Accusatus; Piscator, Timon. His 'λληθίς 'Ιστορία (True History) inspired Rabelais's Voyage of Pantagruel, Swift's Guller's Travels, Cyrano de Bergerac's Journey to the Moon; and his works influenced Voltaire also. The best editions of L. are those of Dindorf (1858), Jacobitz (1874,1886-88), Sommerbrodt (1886-99), Hemsterhuis and Reitz (1743-46), Lehmann (1822-31). There are English translations Νεκρικοί Διάλογοι (of the dead); Ζεύς 31). There are English translation by Franklin (1781), Irwin (six dialogues. 1894), Davidson (1902), 1905). There are English translations lognes, 1894). Davidson (1902). Fowler (complete translation, 1905). Consult Collins, Lucian (Anc. Class. Ser.), 1873; Croiset, Essai, 1882; Passow, Lucian und die Geschichte, 1854; Jebb, Greek Lit.; Essays and Addresses, 1907; Jacob, Characteristik Lucian's..., 1832; Bolderman, Studia Lucianea, 1893; Bernays, Lucian und die Kyniker, 1879; Hime, Lucian the Syrian Satirist, 1900; Gildersleeve, Essays and Studies. Lucian, Saint (c. 240-312 A.D.), a Christian martyr of Samosata, presbyter of Antioch. He was celebrated as

ter of Antioch. He was celebrated as a biblical scholar, and prepared a revised edition of the Scriptures. He was tortured to death by Maximin's orders in Diocletian's reign, Jerome, De Viris Illustribus; Eusebius. Hist. Eccles., ix.; Rufinus, Hist. Eccles., ix.; Rufinus, Hist. Eccles. ix.; Harnack, Hist. of Dogma, iv.; Hefele, Hist. of the Councils, i., 1871.

Lucifer: 1. (Lat., light bearer), the morning star, and the Latin name for the planet Venus, corresponding to the Greek Phosphorus. When the identity of the morning and evening star was recognised, Phosphorus and Hesperus were made brothers. Hesperus were made brothers. 2. Hesiod makes L. the son of Eos, the Dawn, and Astreus; others call his father Cephalus. He had charge of the temple of Aphrodite, and was much in favour with the goddess. 3. In the A.V. of Isaiah, the word is used with reference to the glory of the king of Babylon, but the church fathers attached the name to Satan, thinking that the passage, 'How art of the founders of the Theologische Studien und Kritiken, the chief organ son of the morning,' contained a reference to the Prince of Darkness, gelical son of the morning, contented a reference to the Prince of Darkness.

Thus the word L. has come to be works used to denote the fallen archangel.

Lucifer (c. 300-70 A.D.), Bishop of (4 vols 7 L)

orthodox bishops who had signed the Rimini formula (359), and finally caused a schism in the church of Antioch. His followers were called Luciferians, but the sect soon disappeared. of his works (including Defence of Athanasius) by Tilius, 1568; Migne, Patrol. Lat., xiii.; Hartel, Corpus Eccl. Lat., 1886; Krüger, Life, 1886. Lucigen Lamp, a very powerful artificial lamp, first used in 1885. The light to produce the beautiful artificial lamp.

arthicial lamp, first used in 1000. Inclight is produced by burning crossote oil, held in a strong iron tank in the form of a circular drum. Compressed air, pumped into the drum at the rate of about 20 lbs. per sq. in., forces the oil up a tube, which extends from the hottom of the tank to the from the bottom of the tank to the The lower portion of this tube is encircled by another through which the oil is strained before it reaches the tank. At the outlet, heated air and oil amalgamate and escape together in the form of spray and vapour, producing a regular and

brilliant flame. Lucilius, Gaius (c. 148-103 B.C.), a Roman satirist, born at Suessa of the Aurunci. He is regarded as the founder of Roman satire, for, al-though his verse is rough, it is fluent, and was the model on which Horace and Juvenal based their polished and elegant poetry. He was a personal friend of Scipio, whom he accompanied on the expedition against Numantia, and of Laelius. L. wrote thirty satires, but only fragments remain. The best editions are those of Müller (1872) and Lachmann (1876). See Müller's Leben und Werke des Lucilius, 1876, and Wooles its Latire Liberature, 1895

Mackail's Latin Literature, 1895.
Lucina (Lat lux, light), in Roman mythology, the goddess of light, corresponding to the Greek goddess, Ilithyia. When invoked, she attended women in labour and brought childof the 'mediation' school of evaninnes der

in te,

Arianism; in consequence banished See San-by Constantius in 355. His exile Lucke

de 1818. IV. of

817:

chief industries are wool spinning and manufs. of cloth, paper, machinery, and enamel ware. Pop. 23,475. Lucknow, the chief city of the dist.

of the same name, British India, the cap, of Oudh until the formation of the United Provinces (1901). The city stands on the r. b. of the Gumti, 43 m. N.E. of Cawnpore by rail. It is of great interest to Englishmen on account of the glorious defence of the Residency by a handful of British soldiers (May to Nov. 1857). The notable buildings are the Imambara, the mausoleum of Asaf-ud-Daulá, the palaces of Chhattar Manzil, the Residency, and the Lawrence Memorial, and the great mosque (unfinished), Jama Masjid. The natives are engaged in gold and silver brocading, brass, copper, and clay work, and in the manufacture of shawls, paper, muslins, etc. The Cam 1864, and · soldiers' La sons lucational

establishments. Pop. 265,000. The district of Lucknow has an area of 970 sq. m. Pop. 795,000. The division of Lucknow, comprising six districts, has an area of 12,051 sq. m. Pop. nearly 6,000,000. See Lucknow District Gazeller, 1904; and M'Leod Innes, Lucknow and Oude in the

Mutiny, 1895.

name.

Lucon, a tn. in the dept. of Vendée, France, 21 m. N. of La Rochelle, and is connected with the sea by a canal 8 m. long. It is the seat of a bishopric, and has a cathedral dating from the There are iron and 11th century. copper foundries, and manufs. of liqueurs and clogs. Pop. 6800.

Lucretia, a celebrated Roman matron, the wife of Lucius Tar-quinius Collatinus, and the daughter of Lucretius. According to the story, a number of Roman soldiers in camp quarrelled as to the respective virtue of their wives, and, in order to test the truth of their assertions, returned unexpectedly to Rome to see how their wives were occupied. L. alone was found loyal to her husband, busily occupied on household matters. Her beauty and innocence roused the passion of Sextus Tarquinius, who visited her at night and ravished her. In the morning she told her father and her husband of her shame and Her rape then stabbed herself. then stabled hersen. Here is the stable of the hated rule of the Tarquins. See succeeded Shirley Brooks on Punch Shakespeare's Rape of Lucrece and as the writer of 'The Essence of Thomas Heywood's play of the same Parliament,' for which he has created the characters of 'Toby, M.P.' and

Brandenburg, Prussia, 22 m. S.E. of entirely lacking. His De Rerum Potsdam, on the R. Nuthe. The Natura is a didactic poem on Epicurean philosophy in six books, and is addressed to C. Memmius Gemellus, who was prætor in 58 B.C. The chief aim of the poem is to free men from superstition, to accustom them to the idea of complete annihilation at death, and to rid them of the idea death, and to me to Gods of divine interference. Gods Gods there mortals, but to them, too, death and corruption comes, bringing total eclipse. Regarding mortal concerns they live in supreme contempt. Throughout the whole universe the atom alone is eternal and incorruptible. These theories are expounded by L. with a passionate eloquence, fervour, and power that is quite unparalleled in Latin literature. See H. A. J. Munro's fine translation and commentary.

Lucullus, Lucius Licinius (c 110-57 B.C.), a celebrated Roman general of plebelan stock. He first distinguished himself in the Marsian War, and after-wards fought in the Social War on the side of Sulla, and became pretor in 77, and consul in 74. In the latter year he was entrusted with the care of the Mithridatic War, and remained in Asia for eight years. During the campaigns of 74, 73, and 72 he relieved Cotta, who had been besieged in Chalcedonia, destroyed the onemy's fleet off Lemnos, conquered Bithynia, and forced Mithridates to take refuge at the court of his father-in-law, Tigranes, King of Armenia. L. pursued him across the Euphrates, and

Acilius Glabrio to take his place (67). He did not yield the command to his rival, but was obliged to resign to Pompey, who was sent out in the following year. On his return to Rome, he retired from public life, and became notorious for his fondness of luxury. He wrote a history of the Marsian War in Greek. Sec Plutarch's Life, and Mommsen's History Romc, 1894.

Lucy, Sir Henry W. (b. 1845). 'Toby, M.P.' of Punch, an English journalist. born at Crosby. After serving as a

the characters of 'Toby, M.P.' and the 'Member for Sark.' He has also Lucretius, or Titus Lucretius Carus the 'Member for Sark.' (c. 99-55 B.C.), a Roman poet, concern-contributed to the World, Observer, ing whose life authentic information is Strand, and various reviews, and has ment, 1875; Faces and Places, 1895; Mr. Gladstone, a Study from Life, 1896; Memories of Eight Parliaments, 1908; and Sixty Years in the Wilderness, 1909 (second series, 1912). He was created knight in 1909.

Lucy, St. (281-304), a virgin and martyr, born and died at Syracuse. She was betrothed to a rich pagan who, irritated at her refusal to marry him, denounced her as a Christian to Paschasius, the governor, who be-headed her. She is the patron of the blind, and her day is Dec. 13.

Luddenden Foot, a tn. in the W. Riding of Yorkshire, on the Calder, 6 m. W. of Halifax. It manufs. wool-

len goods. Pop. (1911) 2904.

Luddite Rioters, or Luddites, were organised bands of workmen who gave voice to the popular distress caused by the introduction of machinery and the consequent scarcity in the de-mand for manual labour. The Ls. mand for manual labour. The Ls. destroyed all kinds of machinery, in particular the Nottingham stocking and lace frames, throughout Nottinghamshire, Derbyshire, Leicestershire, They derived their and Yorkshire. name from Ned Ludd, an idiot boy of Leicestershire, who, unable to catch someone who had been tormenting him, destroyed some stocking frames in a fit of temper (1779). The riots lasted from 1811 to 1818. Consult Frank Peel, Risings of the Luddites, Chartists, and Plug-drawers (2nd ed.), 1888; Pellew, Life of Lord Sidmouth, 1847; and the Annual Register, 1811, 1812, and 1816.

metal ware, and has iron foundries. Pop. 32,297.

Lüderitzland (German S.W. Africa),

see Angra Pequeña.

Ludgvan, or Ludjan, a tn. in Cornwall, 3 m. N.E. of Penzance, has tin and copper mines. Pop. (1911) 2213.

Ludhiana, a tn., cap. of L. dist. Punjab, India, 73 m. S.E. of Amritsar. It manufs. famous Cashmere shawls,

ornaments, and carriages, and has a thriving trade in grain. Pop. 48,000. Ludington, a tn., cap. of Mason co., Michigan, U.S.A., on Lake Michigan, at the mouth of Marquette R. It has a fine harbour, exports lumber, and has saw mills and canning factories. In 1849 he was appointed professor Pop. (1910) 9132.

Ludinovsk, a tn. in the gov. Kaluga, Central Russia. It has ire

and glass works, and manufs. loc motives. Pop. 12,000.

Ludlow, a tn. of Shrewsbury, at the junction of the Corve and the Teme. It was an old Roman settlement, and contains a castle of the 11th century.

written Men and Manner in Parlia-| The grammar school was founded in 1282. The industries are tanning and brewing, and there are cabinet works

and corn mills. Pop. (1911) 5926. Ludlow, Edmund (1617-93), an English parliamentarian and regicide, born at Maiden Bradley, Wiltshire. On the outbreak of the Civil War, he joined Lord Essex's Life Guards, and fought at Worcester and Edgehill (1642). Elected to parliament in 1646, he was one of the promoters of Pride's Purge (1648), and signed the death warrant of King Charles I. (1649). In 1651 L. was sent to Ireland as lieutenant-general of horse, and on the death of Ireton in November. held the chief command. But when Crom-well was declared Protector, he refused to acknowledge his authority, and retired from public affairs until 1659, when he was returned to parliament as member for Hindon. At the Restoration (1660) he fled to Vevey, where he died. His Memoirs were published in 1698-99. See new ed. by Firth, 1894, and Guizot's Monk's Contemporaries (Eng. trans.), 1851.
Ludoif, Johann Job (1649-1711), a German mathematician, nephew of

Job Ludolfus (1624-1704), the Orientalist. born at Erfurt, where he entalist, born at Erfurt, where he became professor of mathematics. He published Cometa qui anno 1680 horribiliter apparuit cum integro suo cursu representatus, 1681; Tetrago-nometria tabularia, 1691, and many other mathematical treatises.

Ludolius, Job (the Latinised name of Hiob Leutholf) (1624-1704), a German Orientalist, born at Erfurt. He studied philology at Erfurt and Leyden where, and on his travels, he is Ludenscheid, a tn. in Westphalia, He studied philology at Erfurt and Prussia, 19 m. S.E. of Barmen. It Leyden where, and on his travels, he is manufs. machinery and all kinds of said to have acquired a knowledge of

> Sprache, 1857. See Juncker's Commentarius de vita et scriptis Jobi Ludolfi, 1710.

> Ludwig (German emperors), see Louis.

> Ludwig, Karl Friedrich Wilhelm (1816-95), a German physiologist, born at Witzenhausen, near Cassel.

iology at Zürich, post at Vienna eipzig (1865-95). Physiologic des

expressed his

Institute for original scientific re- cattle, linseed, wine, and corn. search.

Ludwig, Otto (1813-65), a German dramatist and novelist, born at Eisfeld in Thuringia. He studied music under Mendelssohn at Leipzig, but later adopted a literary career, and made his first success with a drama, Der Erbförster (1850), which was followed by Die Makkabäer (1852). His extraordinary power of psychological and in the pictures of Thermatical and the Heiteretei and the Heite Historical Con-Shakespeare.

191-92 and in region. 1900. Sec studies by A. Stern, 1891.

and A. Sauer, 1893.

Ludwigsburg, a tn., cap. of L. dist., in the kingdom of Würtemberg, Germany, 8 m. N. of Stuttgart. It is the second royal residence and a mili-tary centre. The chief manufs. are chemicals, cloth, linen, and organs. Pop. 24,934.

Ludwig's Canal, in Bavaria, Germany, connects the Rhine and the Danube. It extends from Bamberg on the Main to Kelheim on the Altmühl. Its total length is 107 m.

Ludwigshafen, a tn. on the Rhine in the Bavarian palatinate, Germany, opposite Mannheim. It has a free harbour with considerable trade in

Ludwigslust, a tn. in Mecklenburg-Schwerin, Germany, 21 m. S. of Schwerin. It manufactures chemicals and chocolate. Pop. 6926.

Luff, a nautical term used in a sailing ship for putting the tiller on the lee side to make the ship sail nearer the wind.

Luffa, see Loofah.

Lugano, a tn. in the canton of 1 Lake Lugano. It is a much ort. A famous cattle fair is held in October, dating from 1513. The chief manufactures are silk, leather, and iron goods. Pop. 12,999.

Lugano, Lake, in Switzerland and N. Italy, between Lakes Maggiore and Como, covers an area of 19 sq. m., and is noted for its beautiful scenery. Its altitude is 890 ft., and depth 945 ft.

Lugansk, Lugan, or Luganskiy Zavod a tn. of S. Russia in the gov. of, and 143 m. E. of the tn. of Ekaterino-

a tine meteorological observatory. There is a flourishing trade in grain, i

Pop. 35,000.

Luganskaya Stanitsa, a tn. of the prov. of Don Cossacks, S. Russia, on

the Donets. Pop. 20,000.

Lugar, a tu. on Lugar Water, Ayrshire, Scotland, 2 m. N.E. of Cum-nock. It has important iron works. Pop. (1911) 1300.

Lugdunum (Lat.), see Lyons. Lugger, a small two- or threemasted vessel with a running bowsprit and lug-sails, i.e. sails hanging children to the mast, and having or three jibs.

maritime prov. of N.W. ratered by the Miño and

the Sil, and is a fertile

region. Iron, granite, arsenic, and marble are found. Area 3814 sq. m. Pop. 452,197. 2. (Lucense or Lucus Augusti of the Romans) Thecap, of the prov. of Lugo, situated on the l. b. of the Miño, 51 m. E. by N. of Santiago. It is enclosed by four massive Roman walls, and has a beautiful Gothic cathedral, dating from the 12th century. The chief industries are tan-

ning, and linen and wool manufactures. To the Romans it was noted for its hot sulphur springs. Pop. 28,000.
3. A tn. of Central Italy, in the prov.
of, and 14 m. W. of the city of,
Ravenna. It has a large annual fair, held in September, and manufactures

wine and hemp. Pop. (com.) 27,500. Lugos, a tn., cap. of the prov. of Krassó-Szöreny, S. Hungary, 35 m. E. of Temesvar. It is the seut of two bishoprics, Greek and Latin. It trades

chiefly in wine. Pop. 16,200, Lug-worm, Fishing-worm, or Lobworm (Archicolapiscatorum), a marine worm of the sub-order Tubicole or tubemakers, common on the British coasts, id and

mud, an abouts by spire worms are sought after by groundfeeding fish, and are therefore used in considerable quantities as bait by fishermen. Ls. grow up to 10 in. long, and are formed of numerous segments, thirteen of which have

branchial tufts which appear to assist burrowing. Luigi, Andrea di (commonly called

d'Assisi Andrea and nicknamed 'L'Ingegno') (c. 1470 - c. 1556), Italian painter, born at Assisi. He studied under Pierre Perugia, and in his youth was regarded as the rival of Raphael. Later he painted excellent figure studies in conjunction with his master in the hall of Cambio, and afterwards in the Sistine Chapel at Rome. When L. became blind at an early age, Pope Sixtus IV. allowed him a pension. His 'Holy Family 'is in the Louvre.

Luik (Belgium), see Liege.

610

see LUYNES.

was a follower pupil, of da V painting Mado

coes are in the church of the Madonna at Saronno, and he is represented by an oil picture, 'Christ disputing with the Doctors,' in the National Gallery, London.

Luino, or Luvino, a tn. in the prov. of and 21 m. N.W. of the tn. of Como, Italy, on the E. shore of Lake Maggiore. It has considerable trade with

Switzerland. Pop. 6000. Luise, Auguste Wilhelmine Amalie (Queen of Prussia), see Louise.

Lujan, or Luxan, a tn. in the prov. of Buenos Ayres, Argentine Republic, on the Lujan R., 50 m. W. of Buenos Has valuable petroleum springs in the neighbourhood. 12.500.

Lukas, or Leokas, see LEUCADIA.

Luke. The Gospel according to, has been ascribed by a continuous tradition to the writer whose name it bears since the 2nd century. The question has been much canvassed of late, and many advanced critics have denied that Luke had any share in the authorship either of the Gospel or of the Acts, which two are universally ascribed to one compiler. Others are willing to ascribe to him only the we But the sections in the latter work. majority of critics accept the traditional view, which now has the support of the great Professor Harnack, who now places the date of St. Luke's gospel before 60 A.D. Lahn places it about 75, while of more advanced critics who deny the Lucan authorship, Jülicher places it about 105 and Loisy from 90 to 100. The author does not claim to be an eye-witness narrating from his own recollections, but a compiler intending to give a more accurate compilation than those already in circulation. One of his sources was our St. Mark or a treatise very similar to this work. Another source which he had in common with the compiler of St. Matthew's Gospel, and which contained full accounts of the sayings of Our Lord, is generally known as Q (from the German Quelle, a source). See Harnack's Neue Untersuchungen zur Apostelgeschichte und zur Abfassungszeit der Synoptischen

Evangelien, 1911. Lukuga, or Lukuja, see Tanganyika,

Luines, Charles d'Albert, Duc de, coastofthe Gulfof Bothnia. It exports e LUYNES. Luini, Bernardino (c.1470-c.1535), a fish, skins, and forest products. The distinguished Italian painter of the larbour, which was improved in 1901, Lombard school, one of the finest is closed by ice from Novemberto June. masters of fresco painting. He was porn at Luino, was a followe:

sea at Lulea after a

Lull, Raimon, or Lully, Raymond (c. 1235-1315), a Spanish mystic, known as the 'enlightened doctor.' He was born at Palma in Majorca, and led a wild, dissolute life till 1266. when he was converted. After several years spent in solitude and medita-tion, he began a great missionary enterprise, carrying out his jects by preaching throughout Italy and in France, Armenia, and Africa. In 1314 he sailed on a crusade against Mohammedanism to Bugia (modern Bounie) in Africa, where he was stoned, and died of his wounds. L.'s philosophy, as set forth in Libri XII. Principiorum Philosophorum contra Averroistas, was condemned by a papal bull (1376). demned by a papal bull (1376), and is now of interest only for its breaking away from the scholastic system. His Blanquerna (1283) in some ways anticipates More's Utopia. His poems El Desconort (1295) and Lo Cant de Ramon (1299) are of great beauty. See Heliterich's Raymond Lull, 1858; Canalcias's Las Doctrinas de R Lullo 1870. Employ's Permand de R. Lullo, 1870; Barber's Raymond Lully, 1903; and Havelock Ellis's article in Contemporary Review, May 1906.

Lullutpur (India), see LALITPUR. Lully, Giovanni Battista (1633-87), an Italian composer, born in Florence. He went to Paris. where he joined the band of Louis XIV., who made him director of the Académie Royale de Musique (1672). He introduced lively ballets into the French opera, and in conjugation with the root Original conjunction with the poet Quinault composed twenty operas, the chief of which are: Alceste; Thesee; Alys; and Acis et Galathée. His Miserere was written for the funeral See the French Life by of Sequier. Radet (1891).

Lumbago, a medical term applied to a painful affection of the muscles in the small of the back. It usually seizes the patient suddenly on some extra, but not unusual, movement calling on the lumbar muscles. In a severe attack

gives rise necessitating

is probably of rheumatic origin, and may be seated in the cartilages and ligaments rather than the muscles. It Lules: 1. A seaport, and the cap. of appears to follow exposure to damp the lân of Norrbotten, Sweden, is at or cold and leaves the patient open the mouth of Lulea R., on the N.W. to future attacks, particularly with

pains may be allayed by hot fomentations with turpentine or laudanum; the common bread poultice is efficacious. The old-fashioned remedy—the application of a hot iron with brown paper interposed, is also good.

eareith diching, one alonamed chill and damp.

Lumbar Puncture, a surgical operation, the object of which is to remove some of the cerebro-spinal fluid which surrounds the spinal cord. The examination of the fluid is of great value for of the co

pressure 3 of immediat Phe patient is placed on his side in such a posture as to facilitate the insertion of the needle between the processes of the spine; the puncture is made at the lower termination of the spinal cord, below the second lumbar vertebra at the highest point of the iliac crests slightly to one side of the middle line. The needle is pushed up-yards and backwards through the ligaments of the spine, and the fluid will issue drop by drop from the canula, if pressure is normal and healthy. It is carefully collected in a sterilised tube for complete subsequent examination. The operation has been performed in cases of epidemic and tuberculous cerebrospinal meningitis and uræmia, to relieve intra-cranial pressure. The relieve intra-cranial pressure. The fluid should be perfectly clear, and microscopic examination should show the presence of few cells. If there is excess of cells the fluid will be more car

In In may be made into grow-of the cord, mono-nucleated leu-of the cord, mono-nucleated leu-nucleated cells in other forms of the eye fails completely nucleated cells in other forms of the make any approximation to meningitis. The operation of L. P. scientific comparison, judging, e.g., a has been proved of the gree has been proved of the gree in the study of the variou meningitis, bringing them realm of scientific treat; ifference of L., control. The same operation affords can recognise equal L. It can be a means of inducing spinal angesthesia shown (see Light) that the intensity

pawnbroker's shop, bein 'Lombard,' which was

umulated discarded furniture. 'he word, with its two-fold of rubbish and timber, is y associated with both these shipbuild ınıı-

nonling to pawnbroker, some one

facture (important It. includes

and cutting into logs, and the sawmilling of rough timber into beams, and the planing of these. See TIMBER.

Lumbrious, see EARTHWORMS. Luminescence, the property emitting light without the simultaneous manifestation of heat. The most familiar instances are those of phosphorescence in decaying fish, the glow-worm, and fire flies, and the 'phosphorescence' of the sea. Chemical action accounts for it in Chemical action accounts for it in the case of phosphorus itself, oxidation taking place in air at ordinary temperatures. In the case of radium and electric discharges, disintegration of substances largely accounts for it (see X-rays), this occurring probably in the aurora. In the case of quinine sulphate solutions, we speak of fluorescence due to emission of previously absorbed light; other substances exhibiting L. are the sulphides of calcium, barium, and strontium, used in the manufacture strontium, used in the manufacture of luminous paints. These possess the power of storing up light rays of higher retrangibility. Some crystals exhibit L. on being warmed slightly. c.g. diamond, or as a result of friction due to rubbing or crushing, e.g. sugar. See Dr. Phipson On Phosphorescence (1862) for organic L.

Luminosity, the state of emitting light. Intrinsic L, or brightness is the comparative light emitting power of a shining body per unit area. Bodies may be self-luminous or luminous by reflected light; in the former case incandescence is usually due to a excess of cells the must be tested for state of heat. The whole question is

he eye, and a rough may be made into glow-

by photometry ight. The eye,

ifference of L .. It can be by the introduction of anesthetics.

Lumber and Lumbering (cf. Swedish face held normally to the light varies lomra, to roar, a frequentative of inversely as the square of the distance lyumma, to make a noise). Formerly of the point from the light. By so the word lumber was

give equal illuminac. we arrive at their comparative Ls. There are, however, pathological difficulties by defining coal gas owes its luminous powers to carbon particles liberated chemically; if air be mixed as in the bunsen flame, though the heat is more inlost: the solid incandescent mantle, however, becomes intensely luminous. in the flame. Another instance is the ordinary lime light. In this case the solids.

Luminous Paint. Substances with the power of luminescence have been incorporated in point. Such points do not give their appropriate their appropriate to their appropriate to the collection of the collectio visible in the dark by the phosphorescent glow. The substances used are the sulphides of calcium, barium, and strontium, prepared by reduction of the sulphate with carbon. The carliest L. P. was Bologna phosphorus, the sulphide of barium; Balmain's L. P. is another mixed sul-The essential phide preparation. point about these substances is that they lose the property unless exposed periodically to sunlight or other strong actinic rays. The rays of light of higher refrangibility are stored and slowly emitted: an example of the

in Fifeshire, Lumphinans, a in. in Fifeshire, Scotland, 1 m. W. of Lochgelly; has collieries and iron works. Pop. (1911)

dissipation of energy.

2006.

Lunacy in this article is Lunacy. used in its legal sense as representing all those aberrations from mental soundness which involve as a consequence certain disabilities in civil relations. (For the pathological side of the subject, see under INSANITY and MEDICAL JURISPRUDENCE, especially as to the medical tests of L.) The term 'lunatic' is derived from luna, the moon (from the supposed influence of the moon in causing mental disorder). It is notoriously difficult to state the legal conception of L. from the fact that different text writers adopt different classifications, some-times opposing it to idiocy, or other forms of insanity, and sometimes in-cluding under the connotation prac-tically all cases of lost memory. In Then later the law acted on Halo's general, the English law overrides view that the question whether a

many attendant difficulties, e.g. lunatic as meaning and including colour and standard (but see Photo- every person of unsound mind, and METRY). As a rule Ls. of gases or every person being an idiot (Lunatic vapours are low, even with intense Asylums Act, 1853, and Lunacy Act, heat; high L. being due to in- 1890). This leaves the term idiot unheat; high L. being due to in-loso, the most part idiocy candescent solids. Bright flames owe defined, but for the most part idiocy their intensity to small particles of has been used to denote dementia their intensity to small particles of has been used to denote dementia of naturalis, or a nativitate, i.e. constants of mind. though genital infirmity of mind, though some, e.g. Luff (Forensic Medicine and Toxicology), state that all grades of mental deficiency are comprised the brightness is altogether in the term idiocy, from persons whose mental condition resembles a mild form of imbecility to those whose intelligence is so low that they lead but an automatic existence. No less conburning gases, though not supplying fusing is the legal use of the term the light, are themselves somewhat luminous though solids cannot be used indiscriminately to mean non present; possibly the dense gas due compos mentis (i.e. not master of to pressure acts somewhat like the compos mentis (i.e. not master of one's senses), congenital L. in all its variations of signification, and permanent 'adventitious' insanity. Idiocy, at all events, is a term of less shifting import than all the others; it is derived from the Greek thes, a private person, or one who has no public office, and the trys, an ignorant or illiterate person, and necessarily implied and still implies incapacity: whereas the term 'lunacy' is by no means a synonym for incapacity, and does not consistently imply a permanent state. Another type of mental disability is that called imbecility which is legally defined as a weakness of mind between the limits of absolute idiocy on the one hand. and of perfect capacity on the other. The phrase moral insanity is noticed in CRIMINOLOGY. For all practical purposes of civil relationship it is unnecessary to attempt a further differentiation or a more scientific classification of these mutable terms. because the law avoids definitions for the most part, and merely applies various tests to determine responsibility and capacity, and then, according to the result of its inquiry, attaches or removes disabilities, as, for example, disability to make a will or enter into a binding contract. Formerly, the legal tests of idiocy or insanity generally, were of the crudest kind. One test was the capacity of the alleged idiot to count twenty pence, tell his age, who were his father and mother. This

who were the father and mother. Image old test of idiocy is grotesque enough when judged by the light of modern mental science; for it is a common-place among alienists that there are to be found among idiots (generally congenital) special instances of contractal and grotes and grotes.

person was master of his senses was ties supplied to the lunatic, and it one of fact for a jury. At the present is immaterial whether the person day commissions in L. do not venture supplying the necessaries knew or to declare a person a lunatic unless he did not know of the L. A lunatic or is unable to ap

to pass a ratio

to pass a ratio

to pass a ratio

to this vite by any one who want of this vite of mind and want of the supplying the control of this vite of mind and want of the supplying the control of the supplying the necessaries to pass a ratio

to the lunatic of the lunatic or supplying the necessaries to pass a ratio

to the lunatic or supplying the necessaries to pass a ratio

to the lunatic or supplying the necessaries knew or is liable for necessaries to pass or the latest the necessaries to pass a ratio to the lunatic or supplying the necessaries knew or is liable for necessaries to pass or the latest the necessaries to pass or the necessaries to pass or the necessaries the necessaries the necessaries to pass or the necessaries results of the

the subject of (Renton's Lunacy). Medical treatises commonly assume that law has no satisfactory or conclusive test of L., nor indeed any consistently adopted one. But at least the law is practical in that it judges a man's mental condition from his apparent powers of comprehension. It is gravely to be doubted whether medicine has any more conclusive test than law. This is obvious from the high degree of tact and ingenuity which must perforce be exercised in cases of suspected insanity where the subject is believed to be concealing his mental deficiency. The method adopted is to put various questions in the spirit but not in the manner of the cross-examining lawyer, in order that from the answers of the subject inferences may be drawn as to the existence or otherwise of delusions. In one direction law goes further than medicine, because it consistently infers irresponsibility on the ground of insanity from mere ignorance of the nature and quality of a particular act, while medicine recognises that in certain cases a person may from disordered feelings, over which his rational faculty has no control, be unable to refrain from a particular act, although he understands perfeetly its moral nature. The reply of the lawyer is that the good of the community must override emotional idiosyncrasics, and that a narrow standard is the only sale one to adopt. (For the test of criminal responsibility and the relation of lunacy to crime generally in English law, see under CRIMINAL LAW, and also CRIMINOLOGY.) Simple contracts (q.v.) of lunatics

are voldable. They are binding upon petition the lunatio or his representatives rights. unless he or someone on his behalf can prove that the other party to the notice of the lunatic's state of mind, something more than general reputation or a casual intimation that the other is out of his mind is requisite. A lunatic may make a valid contract during a lucid interval, but it is on

rant of his state of mind, and

1 the lunatic when of sound mind, had held out his wife as his agent. The question of the voidability of specialty contracts made by a lunatic is not so clear; but a person found by inquisition to be a lunatic cannot execute a valid deed disposing of his property, nor even during a lucid interval, unless and until the inquisition is annulled. Apparently a lunatic or his agent can only get a contract under seal set aside by establishing, as in the case of simple contracts, incapacity and notice of that fact to the other party.

Apart from statute, unsoundness of mind is no bar to a valid marriage if the alleged lunatic knew at the time of marriage

and fully at duties and

contract of marriage creates; and insanity supervening after marriage is not a ground for divorce or judicial separation unless it also amounts to cruelty, when it might be a ground for separation. A lunatic husband or wife (insane when married) may, on recovering reason, petition for nullity. The sane spouse may also petition for nullity at any time, but the burden of proof of the insanity of the other spouse at the date of marriage is upon the petitioner. But the court does not usually attempt to gauge the extent of the mental derangement, but con-fines itself to the broad issue of the health or disease of the mind at the time of the ccremony (Hall, On Dirorce). It seems that under a statute of George II, marriages of lunatics so found by inquisition are void without the necessity of nullity proceedings, though the point is not free from doubt. L. is no answer to a petition for restitution of conjugal It is a good answer to a petition for divorce on the ground of adultery, or other matrimonial offence, contract knew he was so insane as not if the respondent were of such unto know what he was about. It seems sound mind as not to be aware of the that in order to deprive the other natureaudeonsequences disoffence, party of his rights on the ground of The will of a person alleged to be of unsound mind at the time of making it, cannot be attacked if the testator at the time of executing the will had a sufficiently good memory to recall the nature and amount of his property and the persons who might have moral the other contracting party to prove claims upon it, and further, if his the existence of the lucid interval. Judgment and will-power were not But the property of a lunatic (whether 150 subject to the influence of morbid he be found so or not) is bound to ideas or external control as to be in-recoup the reasonable cost of necessial adequate to balancing the relative strength of those claims. Moral in- alunatic may be detained in an asylum, sanity (see CRIMINOLOGY) is not both in the interests of his own and sufficient to invalidate a will.

The general principle in the law of torts (civil wrongs apart from breach of contract) is that a lunatic is liable to the same extent as any other person; for intention and state of mind are hardly germane to questions of tortious liability. But as Sir of tortious liability. But as Sir Frederick Pollock points out, a lunatic would hardly be held liable in damages for 'incoherent words of vituperation.' The control of the person and property of lunatics belongs of right to the crown (q.v.), a right which was confirmed by the statute De Prærogativa Regis of 1324. Formerly the king took the profits of the estates of idiots for his own use, and acted as a trustee for the estates of lunatics (i.e. non compotes). for, at least, three centuries this royal jurisdiction has been delegated to various officials or bodies like the Lord Chancellor (a.v.), the old Court of Wards, and the Court of Chancery (q.v.), and is now vested in the Masters in Lunacy. Masters in Lunacy are barristers of ten years' standing, who are empowered to hold inquisitions as to the state of mind of a person alleged by near relatives, executors, or certain other persons to be lunatic. A petition for an inquisi-tion must be backed up by medical affidavits, stating the facts relied upon to prove the mental incapacity. The Masters have power also to make all necessary or consequential orders for dealing with the persons and estates of lunatics so found by in-quisition. Under the Lunacy Act, 1890, they also have wide summary powers of management and administration over the property of lunatics not so found, such summary powers being exercisable exclusively for the benefit of the lunatic. There are also ten Commissioners in Lunacy ap-pointed by the Lord Chancellor whose duties comprise the visitation of lunatics in asylums, hospitals, and licensed houses for lunatics, and licensed houses for lunatics, and licensed houses for lunatics, and licensed in private families and empirical for the local families and empirical for the local families of the loca a poor law union or district in which a pauper lunatic is resident has the power of visitation in such cases. The object of this comprehensive scheme of asylum visitation is the prevention of abuse, and it is said that the system is so well worked that abuses

do not occur to any great extent.

Lunatics may be lawfully detained
in the following cases: (a) Under an
urgency order signed by the husband

the public safety. (b) Under a summary reception order made by a justice of the peace in the case of (1) lunatics not under proper care or control, or cruelly treated or neglected; (2) pauper lunatics; (3) lunatics wander-ing at large; (4) lunatics in work-houses. (c) Under an order signed by the committee (i.e. custodian), or by a Master in Lunacy, authorising de-tention of a lunatic so found by inquisition. (d) Under the warrant of the Home Secretary criminal lunatics may be detained during the royal pleasure in criminal lunatic asylums. (e) Under a reception order made by two Commissioners in Lunacy in the case of a pauper lunatic or alleged lunatic within an institution for lunatics or a workhouse.

Statistics.—According to the annual reports of the Lunacy Commissioners there is an alarming progressive increase in insanity, the proportion per 10,000 population having risen from 18.67 in 1859 to 37.12 in 1912.

The figures for 1912 were:

		England and Wales	Scot- land	Ire- land
Males Females	:	63,128 $72,533$	9,401 9,633	12,868 $11,787$
		135,661	19,034	24,655

See Renton's Lunacy, 1897; Archbold's Lunacy (4th ed.); Reports of Lunacy Commissioners.

Lunardi, Vincenzo (1759-1806), an Italian aeronaut, see AERONAUTICS. Lunation, a period between two

new moons. Lunawara, a small state of Rewakanta, Gujerat, India. The cap. L., is a fortified tn., 65 m. E. of Ahmada-

is a fortified the total the control of the control observatory, zoological museum, botanical gardens, and a university, founded in 1668. The industries are woollen manufs, and tanning, 20,139.

20,139.

Lunda, a large ter. in Central Africa, situated S. of the Belgian Congo, and politically belonging partly to Belgian Congo and partly to Portugal. It is watered by the Kasai, Lulua, and Lubilash, and inhabited by the Kalunda, a tribe of Bantus. The Bantus supreme chief is Bantus. The Bantu supreme chief is called Muata Yamvo, who shares his power with the Lukokesha, both these rulers being elected by the nobility. The site of the capital, called Musor wife, or by a relative of the lunatic, The site of the capital, called Musaccompanied by a medical certificate, sumba, changes at the death of the

Muata Yamvo. 2,000,000.

Lundenburg, Lundenburg, a tn. in Moravia, Austria, on the R. Thaya, 12 m. S. of Nikolsburg, contains a famous old castle. It has coal mines. Pop.

8521. Lundy Island, in the Bristol Channel, Devonshire, England, 12 m. N.W. of Hartland Point; has an area of 1051 acres. It contains a lighthouse huilt in 1820, and remains of an ancient castle and round towers. It was a stronghold of smugglers. Pop. 150.

Lüneburg, a tn. of Hanover, Germany, 31 m Ilmenau. T the 14th-ce

and that of It joined the Hanseatic League. The chief manufs, are textiles, carpets, chemicals, and it has iron works and gypsum quarries. Pop. 27,797. Lunel, a tn. in the dept. of Hérault,

France, on the Vidourle, 14 m. E.N.E. of Montpellier. It manufe, 14 m. E.N. E. of Montpellier. It manufe, absinthe, and is the centre of a wine-producing district. Pop. 7500.

Lunen, a tn. in on the Lippe, 24

It has iron works cultural implements. Pop. 10,557.

Lunenburg, a seaport in., cap. of Lunenburg co., Nova Scotia, Canada, 45 m. S.W. of Halifax. The fishing fleets start from here for Labrador. Pop. 4000.

1. In fortification. a Lunette: redan with lateral wings and gorge generally open, built for the protection of roads and bridges. lune, moon), in architecture, crescent-shaped, or semi-circular aperture, made so as to admit the light, or for the passage of bells. The word is also applied to a semi-circular panel, filled in with decorative carving.

Luneville, a tn. in the dept. of tended the specific gravity of the Meurthe-et-Moselle, France, 15 E.S.E. of Nancy. It is a milit depot. The peace of L. was sign here in 1801 between Germany of Nancy. I The industries The industries Napoleon I. woollen and cotton spinning and t

ning and manufs, of gloves, porcelain, and linen. Pop. 24,300.

Lung-chau, a tn. in the prov. of Kwangsi, China, near the borders of Tongking. It is a treaty tn. on one of the main trade routes, and is a military depôt for China. Pop. (estimated) 13,000.

Lungs. The L. are the greyish,

Lungs. The L. are the good ongy, irregularly pyramidal of respirat spongy. conical elastic organs of respiration, there's, the remaining central portion of the cavet bear termed the mediastinum, and containing the artery, capillaries, and vein; heart, great vessels, roots of L., etc. nerves; (d) lymphatics.

Pop. (estimated) Each organ has an apex extending into the root of the neck just above the first rib, and a concave base rest-ing on the diaphragm. The outer surface is smooth and convex, and the inner is concave and in part adapted to the pericardium. The posterior border fitting into the deep concavity on either side of the spinal column is broad and rounded, while the anterior edge is thin and overlaps the front of the pericardium. Each L. is enclosed in its scrous membrane, the pleura, a double bag, the inner closely covering the L., and the outer forming a lining to the cavity of the Between the two surfaces of the pleura there is a small amount of lubricatory fluid as in the case of the pericardium. The bronchus (q.v.) and the great vessels join the L. at its root, which is situated upon the inner surface, somewhat above the middle of the L. and towards its posterior border. Within the L. the arterial trunks run behind the bronchial branches, and the venous trunks are situated in front.

Dimensions, clc.—The right L. is the thicker and heavier than the but is almost an inch shorter owing to the curvature of diaphragm in accommodation of the liver. The organs vary in weight and size according to the amount of blood they may happen to contain. In general, the right L. weighs about 22 oz. in the adult male, and the left weighs about 20 oz. The totals are less in the case of the female, both absolutely and also relatively, for the L. weight is about 47 of the bodyweight in the male and about 12 in the female.

Properties and structure.—The mass of the organ is of a light, porous, spongy texture, and when healthy is buoyant in water. When fully dis-

is opened. The right L. is divided into three lobes, one of which is less distinct; the left is divided into two lobes. The surface of each L. is marked out into polygonal spaces, which are the bases of the lobules, and the substance of the organs is made up of lobules united by connective tissue (interlobular scota). which is continuous with the subpleural and peribronchial connective tissues. Each lobule is a complete system in itself, consisting of:
(a) A small bronchial branch; (b)

having a communication with the by means exterior only of Atmospheric pressure acttrachea. ing down the trachea keeps the L. so far stretched that the two pleural layers are always in apposition, and together with the heart and great blood-vessels they completely fill the thorax. The air passes on into and through the bronchi which some-what resemble the trachea in structure; the current then continues through the various subdivisions of bronchia, bronchioles, and bronchial tubes which, diverging in all direc- phatic

pouches termed air-cells or alveoli, the quently found embedded in the lymwalls of which consist of a thin mem- phatic glands of those engaged in coal brane of arcolar and clastic tissue lined by thin transparent flat cells. The cells are about $\frac{1}{2}$, in. in diameter and are said to number upwards of 700,000,000 and to present a very great surface to the air. It is from the result that the black the air in these cells that the blood obtains a fresh supply of oxygen and gives up ~ be-∣ tween ac is a the layer of

vessels twisting first to one side and then to the other of the septa between

the alveoli.

Blood-vessels.—The branches of the pulmonary artery accompany the bronchial tubes, but in their remote ramifications they subdivide more frequently. They are independent of one another, though the corresponding veins frequently anastomose. The terminal arterial branches are about Toos in in diameter, and from them arise the capillaries 1000 in. in various nerves, and so diameter so closely meshed that their respiratory movements. inter-spaces are the vessels. Th

monary veins ar network of the

of the smaller bronchial tubes; the fusion of these and other venous vessels gives rise to the pulmonary veins which leave the roots of the L. and return the blood to the left auricle of the heart. The pulmonary vessels differ from the systematic in regard to their contents; the arteries in the former circulation carry dark blood while the veins carry red blood. The pulmonary veins have no valves, nor are they more capacious than their corresponding arteries.

Air circulation.—The L. may be | phatic glands, and connective tissue regarded as a many-chambered clastic of the L., while bronchial veins return bag placed in the air-tight thorax and much of this blood to the systematic circulation, though some small amount of it is returned by the

pulmonary veins.

Lymphatics.—Part of the numerous lymphatics of the L. take origin from lymphatic capillaries in the interalveolar septa, others near the surface of the L. come into connection with the subpleural lymphatic plexus. Both sets emerge at the roots of the L. where they enter the bronchial glands, passing thence from the left L. into the thoracic duct, and from the right L. into the right lymtrunk. Foreign particles by the mucus in the bronchial es often find their way through

ay finally reach the bronchial. Particles of carbon are fre-

ithelium into the lymphatics.

mining.

Nerves.—The nerves of the L. come om the anterior and posterior from plexuses, which are formed chiefly by branches from the pneumogastric or vagus nerve, joined by others from the sympathetic system. They enter the L. and follow the distribution of the vessels and bronchi, small ganglia being situated in the walls of the latter. In the lower vertebrates (frog, newt) the nerves are chiefly distributed to a layer of plain muscular tissue, which is everywhere found taking part in the composition of the relatively simple pulmonary wall (Stirling), but in mammals their exact mode of termination is not clear. Impulses pass from the L. along the pneumogastric and along other nerves to a respiratory centre in the medulla, and from this centre efferent impulses proceed along various nerves, and so bring about

Condition in the factus and change after birth.—In the factus the L. contain no air and consequently sink in water. After birth they undergo rapid and remarkable changes conscquent on the commencement of respiration. The chief changes are given below. In a still-born child or in a full period fætus the L. lie packed at the back of the thorax, subsequent respiration in the latter case causes the L, to fill the pleural portions of the thoracic cavity. The introduction of air and of an increased quantity of blood converts their tissue from a compact, heavy, yellow-pink substance into a loose, light, rosy-pink ropongy material, resembling blood oth. These changes occur first at

he anterior borders, and in the right 1. rather earlier than in the left. The

creasing gradually during the intrauterine period undergoes a marked increase at bi

than one-thir The relative from about,

weight to de; a proportion which suffers no material change during later life. The specific gravity is, as might be expected, materially reduced on the commencement of the commencement

breathing.

Diseases, etc .- The L. and its indiseases are particularly subject to disease. Pneumonia, which may attack one L. or both, frequently arises as a secondary complication in association with other diseases. It is due to inflammation of the L. tissue, and is generally accompanied by pleurisy or inflammation of the pleura. Wounds of the thorax caused by piercing implements, or even by the fractured ends of broken ribs, may allow air to enter between the pleure. This is termed pneumothorax. natural elasticity of the L., coupled with the atmospheric pressure acting on its exterior, leads to its contraction and to a consequent difficulty of inspiration. Empyema is the presence of an abscess in the pleural space between the L. and the chest, and is usually caused by the micro-organisms of pneumonia, typhoid fever, etc. An opening of the chest space and draining away of the contained fluid is the usual surgical treatment. Other disorders may require the removal of portions of the L. tissue itself.

Lunkah, or Lanka, a Sanskrit word often applied to urrounding the

Ceylon is called by the Hingus Lanka-dwing, 'shining

island.

Lupercalia, a yearly festival of puri-fication, held at Rome on Feb. 15, in honour of Lycean Pan, whose worship was introduced by Evander, the Arcadian, or, as some think, of the wolf that gave suck to Romulus and Remus. It was held at the foot of the Palatine Hill, near the cave of Lupercus in which was preserved a bronze statue of a wolf. The officiating priests, called Luperci, sacrificed goats and dogs, with the blood of which they touched the forcheads of two youths. The blood was then wiped away with wool dipped in milk, and the youths were obliged to smile during the whole process. The skins of the sacrificial victims were with these the priests ran along the Lushais, a warlike tribe of mounwalls of the city, slashing any one they taineers, who inhabit the Lushai met as an act of purification. Women Hills of Assam. This district was

absolute weight which has been in- were particularly eager to receive a cut, which was believed to remove barrenness. The rite continued until 494 A.D., when Gelasius changed it into a festival of purification of the Virgin Mary.

Luray, a tn. in Page co., Virginia, U.S.A., 76 m. S.W. of Washington. It has considerable trade, flour and lum-

ber mills. Pop. (1910) 1250. Luray Cavern, in Page co., Virginia. U.S.A., near Luray village, has one of the finest displays of stalactites and stalagmites in the world. It is divided into several chambers covered with formations of various colours, and fantastic shapes. It is lighted by electricity and much frequented by tourists.

Lurcher, a cross between a collie and a greyhound, used by poachers on account of its speed and sagacity. It has very keen scent, a watchful ear, and a stealthy tread: when roused it can be very dangerous, and can run

as fast as a hare.

Lure, a tn. in the dept. of Haute-Saone, France, on the Oignon, 18 m. N.W. of Belfort. It has a famous N.W. of Belfort. abboy. Pop. 6500.

Lurgan, a tn. in co. Armagh, Ireland, 20 m. S.W. of Belfast. It is the centre of an agricultural district and carries on important manufs. of lawn, cambric, and damask. (1911) 12,135. Pop.

Luria (or Loria), Isaac Ben Solomon (1534-72), a Jewish mystic, one of the Five Sages of the 16th century, born in Jerusalem. He began life as . spice merchant in Alexandria, but was so much influenced by the Zohar of Moses de Leon, that he became a visionary, and propagated his mystic doctrines among a large company of ecorded

tal, had dogma.

Luristan, a mountainous prov. on the western frontier of Persia, crossed by part of the plateau of Iran, in-habited by numerous tribes. Area 15,060 sq. m. Pop. 350,000.

Lusatia (Ger. Lausitz), a dist. in Germany, comprising Upper and Lower L., and belonging partly to Prussia and partly to Saxony. During the 14th century the country was possessed by Emperor Charles IV., King of Bohemia, and in 1469 it fell into the hands of Matthias Corvinus, King of Hungary. In 1490 it was regained by Bohemia, who ceded it to Saxony by the Treaty of Praguo (1635). In 1815 the whole district was transferred to Prussia with the excepthen cut into long lashes, called tion of Bautzen, which was retained februa (cf. Lat. februare, to purify); by Saxony.

formerly occupied by Kukis. L. number about 82,000.

Lu-Shun-Kau, see Port Arthur.

Lusann-Rau, see Port ARTHUR.
Lusiadas, a patriotic poem written
by Luis de Camoens (a.v.).
Lusignan, a tn. in the dept. of
Vienne, on the Voune, France, 15 m.
S.W of Poitiers. It has a fine 1 th century church. The L. family were
rulers of Jerusalem and Cyprus. Pop.

Lusitania, one of the three provinces into which Augustus divided pania, ancient Spain, the two others being Tarraconensis and Bætica. L. was called after the tribe Lusitani, very and in extent corresponded closely to modern Portugal. The Roman seat of government was Augusta Emerita (Merida). See

Mommsen's Provinces of the Roman Empire (Eng. trans.), 1886. Lussin, or Lossini, an island of the Austrian Crownland of Istria, in the Gulf of Quarnero, and separated by the Channel of Ossero from Cherso. The chief towns are Lussin Grande on the E., containing a Venetian palace, and Lussin Piccolo, the chief port of the Quarnero Island, and a

popular pleasure resort. Pop. 12,947.
Lustenau. a tn. in Vorarlberg,
Upper Austria, on the Rhine, 7 m.
S.W. of Bregenz. It is famous for its

embroideries. Pop. 8381.

Lustre, the characteristic appearance of many substances in ordinary due to the intricate interlight, due to the intricate interworking of transparency, trans He edited t'
lucency, reflection, refraction, and lutherische
diffraction, chiefly at the surface of the Theolog
the substances. For example, the and the the the substances is largely due to the Wissenschaft und Christiches Leben,
11 180.80 He also published: Das diffraction of light. metals have what is termed L., probably due chiefly to

combined with refraction partially absorbed in surface crystal. line layers and reflected back again. In the case of crystals and precious stones refraction plays a larger part. The whole phenomenon is due to interference with incident light rays by the surface and surface layers of the substance before finally reflecting them.

Lustrum (Lat. luere, to purify), a sacrifice for purification and explation by the censors at the end of the quinquennial census of the Roman people. The sacrificial victims (boar, sheep, and bull) were carried round the people assembled in the Campus Martius, hence it was also called the Ambilustrium. Before any expedi-tion was undertaken, and after any disaster, the *lustratio* of the fleet or army was performed. See LUPERCALIA.

Lute (Arabic el ûd), a stringed instrument of music, widely used in the streets. At the age of eighteen Martin 16th and 17th centuries. The primi- L. entered the University of Erfurt,

The tive type of L. is the two-stringed tanbur of Persia. It came into Europe through the Arabian cl ud, which consists of a convex and pear-shaped sound-body stringed with silk and played upon by a shell or quill plec-trum. The L. family includes the Neapolitan mandoline but excludes the guitar and zither, which are dis-tinguished from it in shape and by possessing sides and ribs. The ancient L. seems to have had four pairs of catgut strings, the mandoline still has four pairs, but the larger mandola or mandore has eight pairs. The theorbo or archlute is a double-necked L.; the chitarrone has a very long neck. These two forms were superseded by the violoncello and the double-bass. Mozart, Bach, and Handel wrote parts for the instru-ments of the L. family. See Stainer and Bayratt's Dictionary of Music.

Lutetia Parisiorum, the ancient tn. corresponding to Paris, founded in 53 B.c. by Julius Cæsar, who fortified

it for strategic purposes.

Lütgendortmund, a tn. in the prov. of Westphalia, Prussia, 5 m. S.W. of Dortmund. It has collieries and

Dortmund. It has collieries and sawmills. Pop. 14,984.
Luthardt, Christoph Ernst (1823-1902), a German Lutheran theologian, born at Maroldsweisach, Fran-From 1854-56 he was proconia. fessor at Marburg, and from 1856 till his death professor of systematic theology and N.T. exegesis at Leipzig.

Practically, all 1880-89. He also published: Das

den letzten Dingen, 1861; Geschichte der Chrislichen Elhik, 1888, besides contributions to Strack and Zöckler's Kommentare.

Luther, a tn. of Ontario, Canada, 9 m. S.W. of Wellsdon; has cotton manufs. Pop. 4000.

Luther, Martin (1483-1546), a German reformer and translater of the Bible, called the 'Founder of Pro-testant Civilisation.' He was born at Eisleben, in Saxony, of peasant parents. His father, Hans L., a slate cutter, and mother, Margaret, a very pious and industrious woman, moved after his birth to Mansfield. The boy was sent to school at Magdeburg, and then in 1498 to Eisenach, where he lived with Frau Ursula Cotta. means were very restricted, and to earn a few coins he and some of his school friends sang occasionally in the

where he received his first degree in most important works, namely, On 1503, and his doctorate two years later. He then began lecturing on the physics and ethics of Aristotle, and within a year, contrary to the desire of his father who had destined him for a legal profession, he entered an Augustinian monastery at Erfurt. During these years he passed through severe mental conflicts, and found much comfort in reading the works of Saint Augustine. He was consecrated a priest in 1507, and in the following year entered upon his duties as professor of philosophy to the new University of Wittenberg. Ho abandoned the impractical mode of teaching of the mediaval schoolmen, basing philosophy on the rights reason. He was much attracted by the works of William of Occam, an English schoolman, who preached ecclesiastical reform. In 1510 L. visited Rome on business connected with his monastic order, and was deeply moved at the irreligion and corruption of the papal court. On his return to Wittenberg in 1512, he was made doctor of theology. About the same time he began to preach at the desire of Staupitz, the vicar-general of his order, and attracted great crowds by his eloquence. He first became prominent in the direction of ecclesiastical reform, by his publication of ninety-five propositions, directed against the sale of in-dulgences by the Dominican monk, dulgences by the Dominican mona, Johann Tetzel. These he pinned to the church door of Wittenberg Castle on October 31, 1517. Within a fortnight a German translation had spread through Germany. The original propositions were burnt as herotical, but L. refused to recant, and even refused to obey a papal summons to Rome. Yet it is apparent that at this time he did not contemwith the · the same his first he Seven Penifential Psalms, which was soon

followed by an Exposition of the Ten Commandments and of the Lord's Prayer. At a ge order in 1518, 1

worn scholastic

indulgences. Though refusing to go to Rome, he agreed to meet Cardinal Cajetan at Augsburg, but the interview had no satisfactory results as riew had no satisfactors received. If At the diet of speyer in 1000, that has a specific position became more anything, L.'s position became more resolved that both parties, Catholic anything, L.'s disciples increased and Protestant, should preach according to their conscience, but three

the Liberty of a Christian Man, An Address to the Nobility of the German Nation, and On the Babylonian Captivity of the Church of God. In these he attacked the supremacy of the pope and the doctrines of the Church of Rome. He appealed for tolerance and showed the practical need of the individual to approach God by his own prayer, without the intervention of a priestly mediator. He now realised fully that his separation from the Roman Catholic Church was inevitable. The pope replied to his attack by issuing a bull of forty-one theses. This bull L. burnt publicly at the Elster Gate Wittenberg before a large crowd of students and sympathisers. In this same year Charles of Spain was crowned emperor at Aachen, and to his first German dict, held at Worms in January 1521, L. was summoned. L. seized the opportunity with gladness, and before the assembled powers of Germany made his confession of faith. He was placed under the ban of the empire, but received practical help from his many admirers. The news spread that he had been assassinated by papal emissaries. Germany was in a ferment of excitement. The fact of the matter was, as became known later, the reformer had been safely conducted to the castle of the Wartburg at the instigation of his friend, the Elector of Saxony. There he was virtually kept a prisoner, until the excitement should subside. He spent these hours of seclusion in hard study and in trans-lating the Bible into German. Mean-while, Lutheran opinions were spreading fast over Germany, which was threatened with disorders, and even with revolution. The trouble was worst at Wittenberg, where the populace had been excited by the teaching of the Zwickau prophets. L. left his retreat, and by reinstating order, established his own position as leader. He did his utmost to pre-vent the Peasants' Wer of 1525, and though opposed to the tyranny of the ruling classes, he urged them to suppress the insurgents in every way in order to procure peace. In this year, and in the same year had a contro-tor, he became estranged from Eras-rousy with Dr. Eck. He also pub-lished his Resolutions, which em-phasised his objection to the sale of Arbitrio. About the same time he mar-indulgrases. ried Catherine von Bora, a Cistercian nun, who with eight companions had escaped from her convent under the influence of his teaching. At the diet of Speyer in 1526, it was

every year. ing to their conscience, but three In 1520 L. published three of his years later the diet abolished this

clause, and added another to the effect that no religious body might be deprived of its ecclesiastical revenues, in other words that the Church of Rome retained the revenues of the medieval church. The non-Catholic body protested against this edict and were, therefore, called Protestants. But the Protestants were divided among themselves on political questions as well as on the Supper. doctrine of the Lord's Supper. Zwingli and L. met at Marburg in this year to discuss their views on this question. To the diet of 1530 three separate Protestant confessions were sent, namely that of Zwingli, the Confessio Tetrapolitana, and the famous Augsburg Confession. being still in disgrace, did not appear in person. His place, as leader, was taken by Mclanchthon. Charles was determined to suppress the Reformation. Finding compromise impossible. he enforced the edict of Worms against L. and his followers. The Protestant princes joined together to oppose the decisions of the diet and formed the Schmalkald League. The Reformation now became political in aspect, and L. gradually retired from the leadership. In fact, after the drawing up of the Augsburg Confession, he lived in comparative privacy, but continued to do a great deal of work in organising the ecclesiastical polity of the new church and in suggesting its form of ritual. The Lutheran Church, differing from the Reformed Church, retained most of the mediæval ceremonies and vestment. Its chief distinction from the mediæval church was that the whole service (singing, reading of the scriptures, and preaching of the sermon), was conducted in German. Ill-health prevented L. from preaching as frequently as he would have liked. He died at Eisleben. L.'s writings were voluminous. The most interesting of those not already men-tioned are The Table Talk and his Letters. He also wrote commentaries on the Bible, and many of his ser-mons are still read. His life was mons are still read. His life was written by Melanchthon, Historia de vita et actis Lutheris (1545). Consult also the Lives by Meurer (3rd ed., 1870), Michelet (trans. by Hazilit, 1846), Kolde (2 vols., 1884-93), Köstlin (3rd ed., 1883), Hausrath (1904). See Lindsay, Luther and the German Reformation, 1900; and Dr. Beard, Martin Luther and his Reformation in Germany until the Close formation in Germany until the Close formation in Germany until the Close of the Diet of Worms, 1889. The chief editions of his works are those of Wittenberg (12 vols., 1539-58); Halle Weimar (1883); people's ed. (1892).

Luti, Benedetto (1666 - 1724), an Luti, Benedetto (1666-1724), an Italian painter, born in Florence and died at Rome. He painted in fresco, in oil, and in pastel. His first notable picture was the '5t. Antony of Padua' at Rome, and his masterpieces, 'The Vest of San Ranieri' in the Cathedral of Pisa, and 'Love and Psyche' in the Capitole. Two of his 'Magdalenes' erg in the Louver are in the Louvre.

Luton, a market tn. of Bedford-shire, England, 19 m. S. of Bedford. It employs 20,000 hands in the manufacture of hats and bonnets, the straw-plaiting industry having been founded by James I. There are also brass, iron, and motor-car works, and felt-hat factories. Two fairs are held annually, in April and October. The chief buildings are St. Mary's Church, cmer bullangs are St. Mary's church, in the Decorated style, with some Early Perpendicular work, and the Plait Hall (1869). Pop. (1911) 50,000. See F. Davis, History of Ludon, 1855. Lutsk (Polish, luck), a tn. in the gov. of Volhynia, S. Russia, 51 m. N.W.

gov. of Volhynia, S. Russia, 51 m. N.W. of Kovel. It is the seat of a Roman Catholic bishop. It has belonged to Russia since 1791. Pop. 17,709. Lutterworth, a market town of Leicestershire, England, 64 m. N.N.E. of Rugby. St. Mary's Church contains the pulpit and various relics of John Wyclif, who held the living from 1374 till his death in 1384. There is considerable trade in agricultural produce. Pop. (1911) 9932.

There is considerable trade in agricultural produce. Pop. (1911) 9932.

Lüttich (Belgium), see Liege.

Lüttringshausen, a tn. in Rhenish

Prussia, 5 m. S.E. of Elberfeld. It
has important manufactures of ironmongery, silk, calico, cloth, and brandy. Pop. 13,559.

Lutzelburgher (or Leutzelburger), Hans, a Swiss wood-engraver of the 16th century, a native of Basel. Among the most celebrated engravings attributed to him are several from drawings by Holbein.

Lützen, a tn. in Prussian Saxony, 9 m. S.E. of Merseburg. It was the scene of two battles. In 1632 the Swedes defeated the Austrians, but their king, Gustavus Adolphus, was killed. A granite stone, Schweden-stein, and a monument were erected where he fell. The second battle was in 1813, when Napoleon defeated the allied forces of Prussia and Russia. Pop. 4082.

Pop. 4082.
Lützow, Ludwig Adolf Wilhelm,
Freiherr von (1782-1834), a Prussian
soldier, born in Brandenburg. He
entered the army in 1795, and saw
active service at the battle of Auerstadt and the siege of Colberg. At the
outbreak of the War of Liberation
(1813), he raised a volunteer corps of
infantry and capalry which was celled (24 vols., 1740-53); Erlangen and infantry and eavalry which was called Frankfort (67 vols., 1826-73); re-issue the 'Black Rifles.' The corps was dissolved in 1814, becoming the 25th

Regiment. L. led a gallant charge of Pop. (1910) 259,891, nearly all Roman the 6th Uhlans at Ligny (1815). was promoted to the rank of lieutenant-general in 1830. See K. von Lützow, Adolf Lützows Freikorps, 1884, and F. von Jagwitz, Geschichte des Lutzowschen Freikorps, 1892.

Luxembourg, a prov. in the S.E. of Belgium. Area 1706 sq. m. It is in the region of the Ardennes, and is watered by tributaries of the Moselle. Its products are slate, iron, and manganese; the chief industries are boots and shoes, gloves, pottery, and steel works. Pop. 226,000.

Luxembourg, François Montmorency - Bouteville, Henri dв Duc de (1628-95), marshal of France, cousin of the great Condé, born in Paris. He shared Condé's fortunes in the wars of the Fronde, was pardoned by Louis XIV. on his return to France (1659), and subsequently was created a peer of the realm (1661). He served in the Netherlands (1667), and defeated William of Orange at Woerden (1672). His retreat from Utrecht (1673), in the face of such tremendous odds, was a masterly exploit that won for him a high reputation. In 1690 he defeated the allied troops at Fleurus, and put his old enemy, now William III., to route at Steinkirk (1692) and Neerwinden (1693). See Histoire Militaire du Duc de Luxembourg by Beaurain (1756), and the biography by Count de Ségur (1907).

Luxembourg Palace, in Paris, on the S. side of the Seine, was crected by Marie de Medici, and in 1879 became the meeting-place of the Senate. the meeting-place of the Senate. Attached to it is a gallery in which are exhibited the works of living

artists. See Paris.

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WE.

Luxemburg: 1. An independent grand-duchy of Europe, bounded on the N. and E. by Prussia. Area 998 5g. m. The southern part belongs to the plateau of Lorraine, and the northern, which is still higher, consists of the forest of Ardennes. The country is watered by the Sauer and affluents of the Moselle, which forms part of its eastern border. The soil is very fertile, particularly in the S., and agriculture is the chief industry. Stock-raising is carried on and there are important iron mines. The principal manufactures are pottery, woollens, gloves, leather, spirits, beer, sugar, paper, etc. The reigning grand-duke is Wilhelm (b. 1852), who succeeded in 1852. The legislative power is vested in a House of Representatives, numbering forty-five, who are el€

Catholics, speaking a German dialect with an admixture of French. counts of L. took their name from the castle of Lützelburg, which was noquired by the first Count Siegfried in 963. In 1308 Count Henry became Henry VII., Emperor of Germany. Henry's grandson, Charles IV., raised it to the rank of a duchy in 1354. In 1443 it was united with Burgundy, till 1659, when it fell to France. By the Treaty of Utrecht (1713) it was ceded to Austria, but was re-annexed to France at the Peace of Campo-Formio (1797). At the Congress of Vienna (1815) it was created a grand duchy and part of the German confederation, and by the Treaty of London (1867) it was declared a neutral independent state. 2. The cap. of the above, situated on the Alsette, 42 m. N. of Metz. It consists of two parts; the Oberstädte stands on a realize slift rad is connected with the rocky cliff and is connected with the Unterstädte, lying in a ravine, by flights of steps. The chief buildings are the Gothic Cathedral of Notre Dame, the Palais du Roi (1580), and Pop. 21,000. the town hall. See Passmore, In the Further Ardennes. 1906.

Luxeuil (ancient Lixovium), a tn. in the dept. of Haute-Saone, France, 27 m. N.W. of Belfort, is famous for its mineral baths, known to the Romans. It contains many interesting remains. St. Columba founded a monastery here in 590, destroyed in the 9th century. The chief manufactures are paper, cotton, and wines. Pop. 5500. Luxor, see THEBES.

Luxulian, a tn. in the co. of Corn-wall, England, 6 m. S.W. of Bodmin.

Luynes (or Luines), Charles d'Albert, Duc de (1578-1621), a courtier of Louis XIII., son of Honoré d'Albert (d. 1592), governor of Beaucaire. He instigated the assassination of Concini (1617); as governor of Picardy suppressed a rising of nobles (1620); and after being appointed Constable of France (1621), headed an expedition against the Protestants. See Re-cueil des pièces les plus curieuses qui ont esté faites pendant le règne du connestable M. de Luynes (2nd ed.), 1624.

Luz (Almond): 1. The old name of Bethel, a tn. in Palestine, 91 m. N. of Jerusalem. 2. A tn. in the land of the Hittites, Palestine, whose position has

not been identified.

Claramunt de Suelves Luzan, Gurrea, Ignacio (1702-54), a Spanish poet and man of letters, born at Saragossa. He was appointed secretary to the Spanishlegation in Paris (1747-50), and treasurer of the Royal Library at Madrid (1751). His literary reputation was made and still remains on his criticism of poetry, La Poética o Reglas de la poesta en general y de sus principales especies, 1737.

Luzern, see Lucerne. Luzerne, a tn. in the co. of L., Pennsylvania, U.S.A., 2 m. N. of Wilkesbarre. It has iron foundries, factories, and flour mills. Pop. (1910)

Luzon, or Luçon, the largest and most northerly of the Philippine Is. Area 40,969 sq. m. The coast-line is much indented, the principal inlets being the Gulf of Lingayén and Manila Bay on the W., Tayabas and Ragay bays on the S., and the bays of Lagonoy, San Miguel, and Lamón on the E. The island is very mountainous, the chief rappea being the tainous, the chief range being the Cordilleras. The highest peak is the volcano Mayón (7566 ft.). There are six chief rivers: Rio Grande de Cagayán, Aguo Grande, Abra, Rio Grande de la Pampanga, Vicol, and Pasig, besides many streams and Pasig, besides many streams and lakes. The vegetation is tropical and luxuriant. The chief manufs. are silk, tobacco, ivory carvings, and mats. Pop. 3,798,507.

Luzula (It. Lucciolia), a genus of perennial rushes of the order Junca-Six species are British. are characterised by soft flat hairy leaves more grass-like than the other rushes. The clusters of flowers have prominent yellow anthers, and their sparkling appearance by moonlight when wet with dew is supposed to give them some resemblance to the

glow worm.

LXX (abbreviation for Septuaginta),
the Septuagint, the Greek version of
the O.T., said to have been made by seventy translators at Alexandria about 300 B.C.

Lyall, Sir Alfred Comyn, P.C., K.C.B. (1835-1911), an English administrator. He became governor of the N.W. Provinces of India in 1882, and in 1888 was appointed a member of the Council of India. His sympathy with the character and difficulties of

Hastings; a volume on the rise of of sheep. British dominion in India; a criticism of Tennyson (1902); and The Life of

Lord Dufferin, 1905. Lyall, Edna (1857-1903), pseudonym of Ada Ellen Bayly, a novelist, was the author of numerous works of fiction, which appeared between 1879 and 1901. Her first book Won by Waiting, author of numerous works of fiction. lived by plunder and foray. which appeared between 1879 and 1901. Her first book Won by Waiting, 1879, was almost still-born, but attention being attracted to it by the It was situated S.E. of the city, out-

success of her subsequent stories, it was republished and ran through many editions. Her best books were Donovan, 1882, and its sequel, IVe Two. In 1886 some person claimed to be E. L., and to refute this statement, and to dispose of a rumour that the novelist was in a lunatic asylum, she announced her identity and pub-lished the Audobiography of a Slander, 1887. There is a biography by J. M. Escreet (1904).

Lycanthropy (Gk. λύκος, wolf; ανθρωπος, man) was the power attributed to certain mortals of changing themselves into wolves. It was also used in a broader sense, and applied to the metamorphosis into any animal. i.e. tiger, dog, bear, fox, etc. Herodotus relates that the heuri turned to wolves for a few days every year, and in Virgil's eighth Eclogue we read how Mœris makes himself a wolf by means of poisonous herbs. Again, the Khonds of Orissa think men can become tigers by the help of a god in order to avenge their ene-mies, and the Budas of Abyssinia, iron workers, and potters, have the power of turning into hyeenas. In the Scandinavian sagas, too, there are 'werewolf' warriors of peculiar ferocity, and the belief is still current in Denmark that a werewolf can be recognised by his eyebrows meeting.

Lycaon, in Greek mythology, the son of Pelasgus, and king of Arcadia. Various stories are told of him, according to some he was a barbarian, who even defled the gods, while others describe him as the first civiliser of Arcadia, who built the town of Lycosura, and introduced the worship of Zeus Lycœus. He was the father of fifty sons who were notorious for their implety. They were visited by their implety. They were visited by Setting before him a dish of human flesh. Zeus pushed away the table which bore the horrible food, and either killed L. and his sons by a control of the horrible of them. flash of lightning, or turned them

into wolves.

Lycaonia, a prov. of Asia Minor in ancient times, bounded on the N. by the Indian people won for him a posi-tion of authority, and his Asiatic a bleak country, well adapted as re-land for sheep and wild

re-land for sheep and wild indeed, King Amytas is said we possessed over 300 flocks It suffered from dearth of

water, which was probably aggravated by the abundance of salt in the soil. The inhabitants were a hardy and warlike race, which owned no subjection to the Persian monarchs, and

, Hamlet,

the temple of Apollo Lyceus in the vicinity. Here it was that Aristotle and the Peripatetics taught, and it was also the place where the Pole-march administered justice.

Lyceum Theatre, in Wellington Street, Strand, was first built in 1795, and received its licence in 1809 when the Drury Lane Company took it over. Since then it has been rebuilt more than once, and has been the scene of many remarkable performances, notably those by Mrs. Keeley and Edmund Kean, Planche's 'fairy extravaganzas,' and Beverley's transformation scenes. Irving first appeared at the Lyceum in 1871 under --d played i٠ remark-

opened the theatre under his own 1878 he enice, with ind Portia.

had a remarkable effect on the English stage the Lyceum stage management, and the brilliancy of its productions in scenery, dressing, and accessories, were revelations in the art of mise-enscène. But in 1899 the theatre passed into the hands of a limited liability company, and since then it has rather deteriorated in the character of its performances, being devoted mainly to the production of second rate

plays and pantomimes.

Lycia, a mountainous country on the S.W. coast of Asia Minor, occupied an important place in the Homeric accounts of the Trojan War. It was originally peopled by two races, the Solymi and the Termilæ, afterwards it was conquered by the Persians and the Syrians, and then by the Romans. The principal cities were Xanthus, Patara, Myra, Telmessus and Phaselis, and during its independence it was ruled by governor called the Lyciarch. Many interesting remains have been discovered in this region, the monu-ments and other antiquities showing a close relationship to the Greek forms. Sec Grote's History of Greece.

Lyck, a tn. of E. Prussia, stands on Lake Lyck, 90 m. S.E. of Königsberg. It has manufs. of machinery, mineral waters, etc. There is an old castle, which belonged to the Teutonic knights, situated on an island in the middle of the lake. Pop. 13,427.

side the walls, just above the R. sired his protection. L. led his guest Hissus, and received its name from to an elevated place and killed him by throwing him down a precipice.

Lycophron (c. 260 B.C.), an Alexandrian grammarian and poet, was a native of Chalcis in Eubœa. Ptolemy Philadelphus entrusted to him the arrangement of the Alexandrian library, and in the execution of this task L. drew up an extensive work on the Greek comic poets. He is said to have been a skilful composer of anagrams, and also wrote many tragedies, but his Cassandra is the only poem which has come down to us.

Lycopolis, an ancient tn. of Upper Egypt, on the site of which the town

of Assiout now stands.

Lycurgus (c. 825 B.C.), 'the legislator of Sparta,' was son of Eunomus, King of Sparta. Becoming guardian to his nephew, the infant king of Sparta, L. set out on extensive travels that he might not be suspected of ambitious designs. On his return he found the country in a state of anarchy and moral degeneracy. His countrymen welcomed him as their saviour, and besought him to put their state to rights. After fulfilling this task and giving Sparta the con-stitution which laid the foundations of its greatness, he obtained an oath from the Spartans that they would change nothing before his return from further travels. the constitution might remain permanently inviolate he departed into exile with the intention that it should be life-long. It is not known where or how he died. L. was honoured as a god, a temple was built in his honour, and sacrifices offered down to a late period.

Lyourgus (c. 390-329 B.C.), one of the Attic orators. He was of the ten Attic orators. noble family, a disciple of Plato and Socrates, and one of the principal supporters of Demosthenes as a patriot and an adversary of the aggressive Macedonian monarch. a statesman and citizen he was conspicuously upright and active. administered the finances of Athens for twelve years, and during this time he increased its revenue, beautified the city, and served the cause of literature by preserving in its archives copies of the plays of Æschylus, Sophocles, and Euripides. of One only of his orations (that against Leocrates) is extant.

Lydbrook, or Lidbrook, a par. in m.E.N.E.

I and iron-74.

Lydd, a bor. of Kent, 3 m. S.S.W. of New Romney. It has manufactures of the powerful explosive called lyddite, and possesses a government artillery range. Pop. (1911) 2874.

Lod), an ancient city of Palestine, situated in the plain of Sharon, 11 m. S.E. of Joppa. It was renamed Diospolis in the 2nd century A.D., and is referred to in both the O.T. and N.T. St. George is said to have been born and buried here, and in the 4th century a bishopric was instituted under his name. The church erected over his tomb has been repeatedly destroyed and re-

Lyddite, a modern military high explosive, manufactured at Lydd in Kent. Chemically it is picric acid (C₄H₁(NO₄), OH), and is prepared from carbolic acid by the action of nitric acid. It is a bright yellow solid crystalline, and bitter to the taste. Like cordite, it is difficult to detonate. It is poured into shells when molten, and on bursting gives pungent, suf-

focating fumes.

Lydenburg, or Leydenburg, a tn. of the Transvaal, S. Africa, situated on a trib. of Olifant's R., 144 m. E.N.E. of Pretoria. It is the capital of the Lydenburg district, which is rich in gold deposits, chiefly alluvial. town does a thriving trade in agricultural produce, etc., and has a good market. There are Dutch and English churches, and a government school. Pop. 1500.

Lydford, a par. in Devonshire, England, 11½ m. E. of Launceston. It was a walled town before the Conwas a wanter town before the Conquest, and for many centuries was the capital of the Devonshire 'stannary,' owing to its important position on the edge of the great tin district of Dartmoor. Pop. (1911) 2800.
Lydgate, John (c. 1370-c. 1450), an English poet, born at Lydgate, Suffolk. After studying philosophy at Oxford, he travelled in France and Italy, where he became a master of

Italy, where he became a master of continental poetry. L. was an admirer and imitator of Chaucer, his Storie of Thebes being represented as a new Canterbury tale; he produced many other poems, including the Troy Book, the Falls of Princes, a Life of St. Edmund, and The Legend of St. Alban.

Lydia, in ancient geography, a country of Asia Minor, lying between the Ægcan Sea and Mysia, its actual boundaries varying considerably at different periods. The name Luddi is found among the inscriptions of an Assyrian king, Assur-bani-pal (c. 660 Assyrian king, Assur-banr-par (c. 600 B.C.), who received tribute from Gyges, the first of the Mermand dynasty of Lydian kings. Homer writes of the Meonians and their capital, Sardis; Herodotus states that the Meiones (Meonians) were called Lydians after Lydas, the son of the

Lydda, or El Ludd (Gk Aύδδα, Heb. | Heraclid dynasty, Candaules, was 5d), an ancient city of Palestine, murdered by Gyges; the story in tuated in the plain of Sharon, 11 m. | Herodotus of Candaules' wife is familiar. Gyges established the Mermnand dynasty (687 B.C.). He made war with Assyria, but was freed to pay tribute; he also sent troops to Psametichus in Egypt. He was killed in an invasion of the leal Cimmerians in 652, and was succeeded by Ædys, and then by the latter's grandson, Alyattes, under whom L. became a great maritime power, gradually encroaching on the Greek Ionian towns of the western coast, while an alliance between his daughter and Astyages brought peace with the Medes. The Cimmerians were finally subdued, and under his suc-cessor, Crosus, L. became an em-pire ruling all Asia Minor with the exception of Lycia. In 596 B.c., after fifteen years' rule, Cyrus captured Sardis and its king, and it became the capital of the W. in the great Persian empire. L.'s later history is, therefore, that of Persia and the great Persian war with Greece. Under the Romans it was part of the procon-sular province of Asia. At the period of its great prosperity L. was the great industrial centre of the East; possessing a healthy climate, wonderfully fertile, with the gold so long associated with the R. Pactolus, legend credited it with many inventions; the carliest coinage was attri-buted to it, while dicing and games of various kinds also were said to have first been played by the Lydians. Nature-worship formed its religion, centring round the Great Mother, Cybele.

Lydney, a tn. in Gloucestershire, England, on the Severn, 16 m. W.S.W. of Gloucester; it has coal and iron mines. Pop. (1911) 9005.

Lydus, Joannes Laurentius (c. 490-565), a Byzantine writer, born at Philadelphia, in ancient Lydia, and at the age of twenty-one went to Constantinople and studied philo-sophy under Agapius. He held various civil positions, and was rewarded by being appointed matricularius and by various other marks of distinction. None of his poetical works have been preserved; his prose compositions include *De Mensibus Liber*, a treatise on the Roman calendar, and *De*

Magistratibus Republica Romana.
Lye. Caustic Ls. are solutions of potash and soda; mild Ls., of their carbonates. Mother L. is the fluid remaining after crystallisation from solution.

Lye, Edward (1694-1767), a scholar and clergyman, born at Totnes. Devonshire. Having been ordained mythical Attis, whose dynasty pre-in 1717 he was appointed vicar of ceded the Heraclidæ. The last of the Houghton Parva, Northamptonshire, in 1721, and began his study of Anglo-panies of the Chapel Royal at St. Saxon, Gothic, etc. In 1743 he pub-Paul's, London, among which were Saxon, Gothic, etc. In 1743 he published the Elymologicum Anglicanum of Junius, to which he added an

lished |

Lye, The, a par. in Worcestershire England, 1½ m. E. of Stourbridge. There are coal mines in the vicinity, and the manufs. of the district are fire-bricks, anvils, vices, etc.

Lyell, Sir Charles, first Baronet (1797-1875), a geologist, born near Kirricmuir in Forfarshire. He studied at Exeter College, Oxford, where he was attracted to geology by the lectures of Dr. Buckland, and in 1819 joined the Geological and the Linnean societies of London, being elected secretary of the former in 1823. He was elected F.R.S. in 1826, and in 1830 published the first volume of his Principles of Geology, the summary of which is given in the continuation of the title, 'being an attempt to explain the former changes of the earth's surface, by reference to causes now in action.' The second and third volumes appeared in 1832 and 1833 respectively, and the whole work was reprinted in four smaller volumes in 1834. The book was popular from the first, and by 1875 had run through

> tions of iis great Geology inciples, ica, with

Geological Obscryations, 1845; Geological Observations, 1845; A Second Visit to the United States of North America, 1849; The Antiquity of Man, 1863; and The Student's Elements of Geology, 1871. He was professor of geology at King's College, London, 1831-33, and president of the Geological Society, 1835-36 and 1849-50. He was knighted in 1848, and greated a harpnet in 1864. created a baronet in 1864.

twelve editions; indeed it was one of

Lykewake, or Lychwake, see WAKE. Lyly, John (1553-1606), a dramatist and author of Euphues, born in Kent. He took his degree of B.A. at Magdalen in 1573, and his M.A. in 1575, but he also studied at Cambridge, and was at that university year the first part

Anatomy of at once bec followed by

in 1580, which brought him unde notice of Lord Burghley, who him some employment. After

he wrote light plays to be performed is poured into large veins near

Campaspe and Sapho and Phao, produced 1584. In 1589 he championed Anglo-Saxon grammar, and in 1750, the cause of the bishops in the Martin

ate ite controversy, and pub-tract entitled Pappe with an and in 1589 entered parlia-

and | ment for Hinton, being subsequently elected for Aylesbury in 1593, for Appleby in 1597, and again for Aylesbury in 1601. L.'s chief work was his Euphues, which, although a very tedious story, is remarkable for its prose style, which is chiefly characterised by a continuous straining after antithesis and epigram. The novelty of this style was generally acknowledged in his own day, and received the name of 'euphuism.' L. also enjoyed some reputation as a writer of joyed some reputation as a writer of comedies, and is described as 'cloquent and witty,' but his plots are loosely fashioned, and his language artificial, the only attractive feature of his plays being the lyrics. Among his being the cornellos are "transfer and the cornellos are transfer are transfer and the cornellos are transfer are transfer and the cornellos are transfer are transfer and transfer are transfer are transfer and transfer are tr his best comedies are Alexander and Campaspe, Midas, and Endymion.

Lyme-Regis, a scaport and water-ing-place of Dorset, England, stands on the Lyme near the entrance to the English Channel. It was chartered by Edward I., and incorporated by Elizabeth; in 1685 it was the landing-place of Monmouth. The Lias rocks in the vicinity have yielded remains of the Ichthyosaurus and Plesiosaurus. Pop. (1911) 2772.

Lymington, a seaport and wateringplace of Hampshire, England, stands on the river of the same name, 12 m. S.W. of Southampton. Yacht-building forms the chief industry. (1911) 4329.

Lymm, a par. and tn. of Cheshire, England, 5 m. E. of Warrington, Laucashire. Pop. (1911) 4989.
Lymph (Lat. lympha, water), a slightly yellow, waterish, somewhat salt, alkaline fluid pervading all the tissues of the body, and originating as an exudation of blood plasma from the capillaries. It is a medium acting between the cells and the blood, and performs a double function; conveying waste matter from the tissues to the blood and providing new sub-stance for the formation of blood. Chemically L. shows no difference from blood itself except in the red

from the colourless Under the microes.

scope it shows fat globules and

at court by the children's acting com- heart, supplying to the blood the

in the lymphatic glands. In its course through the intestines, after collecting the digested food at the villi, it becomes milky owing to the absorption of fat molecules; this fluid is known as chyle, and the vessels as

lacteals.

Lymphatics, known also as absorbents, are the vessels which carry the lymph (q.v.) throughout the body. They absorb the waste products of tissues and collect the final products of digestion, the former then to be excreted by skin, lungs, and kidneys, the latter to renew the blood and tissue. The L. of the small intestine are known as lacteals, and convey chyle. The structure of L. resembles that of veins and arteries; they have three coats, fibrous, muscular, and epithelial; they are minute tubes showing a characteristic knotted appearance due to semilunar valves which direct and regulate the flow of lymph; they continually bifurcate, and before entering a L. gland divide They originate as into branches, minute rootlets forming capillaries which enter larger vessels, or the glands themselves, and form two sets; the superficial L. lying immediately beneath the skin at the surface of the body, and the deep L. in the interior of the body lying in the arcolar tissue; the former communicate with the latter which are larger. The final vessel of the L. system is the thoracic duct, which enters the system of circulation at the junction of the subclavian and jugular veins on the Another duct, the right L., enters the right subclavian and conveys lymph from the right side of the body from the chest upwards. The L. glands are small solid kidney-shaped bodies, usually compared in size to variation from hempseed to the almond; there are again two sets, (1) in the thorax and abdomen, the deep set, (2) the superficial set distributed in the groin, the ham, the armpits, and the neck. The L. thus form a circulatory system regulated by valves, and, owing to direct connection with blood circulation, enforced by the heart. There is no direct communication between the blood and lymph capillaries; the blood plasma exudes and bathes the tissues, and is absorbed with foreign matter collected into the L. The L. system is subject to disease. Lymphangitis or inflammation of the L. occurs with enlargement in the neck as an accompaniment to scrotlla; Bubo is an affection in the groin. Lymphosarcoma may need surgical treatment. Dealing as lymph does with the intimate cell-life of the body,

corpuscies or lymphocytes collected direct, one of its main functions being absorption of foreign matter, it is liable to poisoning, particularly by bacteria and the tubercle bacilli.

An uncommon but fatal occurrence is the stoppage of circulation of the lymph.

Lyndhurst

Lyncous: 1. In Greek legend, was the son of Ægyptus and Argyphia, and married the Danaid, Hypermnestra, by whom he had one son, Abas. He became king of Argos, and buried there near the altar of Zeus Phyxius. 2. In Greek legend, a son of Aphareus and Arene, was one of the Argonauts, and was famous for the keenness of his sight. He took part in the Calydonian hunt, and was slain by Pollux.

Lynchburg, a city of Virginia, U.S.A., stands on the James R., 124 m. W. by S. of Richmond, Tobacco is the chief export, and there are manufs. of brass, iron, flour, farming implements, furniture, etc. Pop. (1910) 29,494.

Lynch Law, a phrase denoting mob vengeance without form of law on a person suspected of having committed At the present day it is heard mainly in regard to the hanging of negroes in the United States for assaults on white women. The origin assauts on white women. The origin of the term is variously ascribed to the name of Colonel Lynch, who illegally whipped Tory conspirators in 1780; and James Lynch Fitz-Stevens, mayor of Galway, who in 1493, acting on the classic precept of Brutus, tried his son for murder, and alternative that from publish execut. when prevented from publicly executing him, hanged him from the window of his own house. In American law all present and consenting at person's death by lynching are guilty of murder in the first degree, unless the act were committed in sudden anger; which saving clause, together American colour prejudice, operate to secure the exculpation of most lynching parties in that country. Confessions extorted under the fear of L. L. are generally inadmissible in evidence.

Lyndhurst, a vil of Hampshire, England, is beautifully situated in the New Forest, 8 m. W.S.W. of Southampton; it contains the 'king's house, or residence of the warden

of the Forest. Pop. (1911) 4108.
Lyndhurst, John Singleton Copley,
Baron (1772-1863), Lord Chancellor, Baron (1772-1863), Lord Chalcelor, born at Boston, Massachusetts. He was brought to England at an early age, and studied at Trinity College, Cambridge. In 1804 he was called to the bar, and joined the Midland circuit, and in 1812 became popular at Nottingham by defending a Luddite rioter, John Ingham. In 1819 he became chief justice of Chester, Solicitor-General, and received the communicating with the blood-vessels Solicitor-General, and received the

order knighthood. Attorney-General from 1824-26, and became Master of the Rolls in 1826. As Baron L. he was Lord Chancellor under three administrations, 1827-30, when he was made Chief Baron of the Exchequer. He was again Lord Chancellor, 1834-35, and took a leading part in the debates in the Lords, He was high steward of University, Cambridge 1840. and Chancellor for the third time, 1841-46. He made his last speech in the Lords in 1861.

Lyndsay, Sir David, sec LINDSAY,

SIR DAVID.

Lyndsay of Pitscottie, sec LINDSAY,

ROBERT, OF PITSCOTTIE. Lyne, Rev. Joseph Leycester, see

IGNATIUS, FATHER.
Lynedoch, Thomas Graham, Lord (1748-1843), a general, was the third and only surviving son of Thomas Greene, laird of Balgowan, Perthshire. In 1793 he joined Lord Hood's fleet in the Mediterranean as a volunteer, and on returning home he raised a battalion known as the 'Perthshire Volunteers.' He became brevet-colonel in 1796, and was appointed British military commissioner with the Austrian army in Italy, 1798. After the Peace of Amiens, he took up parliamentary duties until 1808, when he accompanied Sir John Moore to Sweden and Spain as aide-de-camp, being present in the Corunna retreat. His most memorable victory was the defeat of the French at Barossa, March 1811; during the rest of the Penin-sular War he acted as second in com-mand to Wellington, and for his services was created Baron L. of Balgowan, 1814.

Lynmouth and Lynton, two picturesque villages of N. Devon, stand on the Bristol Channel, 12 m. E. Lynmouth is on the Ilfracombe. shore, at the base of a lofty cliff, and Lynton nestles on the hillside, 428 ft. above. A cliff-railway has been built

connecting the villages. Pop. (1911) of Lynmouth, 400; of Lynton, 1770. Lynn, a scaport of Essex co., Mass., U.S.A., stands on Massachusetts Bay, 10 m. N.E. of Boston. It has important boot and shoe manufs., and large tanneries. Pop. (1910) 89,336.

Lynn Canal, an inlet of the Pacific, off the coast of Alaska, is an important entrance to the Klondyke It divides into the Chilkat and Chilkoot inlets, and at the head of the latter are Skagway and Dyea. Chilkat village stands at the junction of the two waterways.

Lynn Rogis, see King's Lynn.

Lynx, the name of a small northern constellation introduce in 1690; it lies betwee Bear and Auriga, N. of

He was its ten brightest stars are of the

fifth magnitude.

Lynx, the general name for a widely distributed genus of flerce, blood-thirsty Felidæ. Of the two European Ls., the Northern L. ranges throughout Scandinavia and N. Russia, but is very scarce. The Southern or small spotted L. is common in the less frequented parts of Southern Europe. The African L., or Caracal (q.v.), occurs throughout the African continent, and there are four species in the New World. Ls. are larger than the New World. Is, are larger than the true wild cats, and have long limbs, the tail is short, the ears are tipped with a tuft of hair, and the cheeks are bearded. The soft valuable fur is light brown or grey with darker spots varying according to species.

Lyon Court, in Scots law, the court of the Lyon King-of-Arms, who derives his title of 'Lyon' from the light rampant on the armoral bearings.

lion rampant on the armorial bearings of the Scottish kings. As officer-of-arms he corresponds to the Garter officer in England, though unlike the latter he is not under the control of the Earl Marshal, an office which has ceased to exist in Scotland. The office and its duties are very ancient, for, according to Sir James Baltour, the Lyon King-of-Arms, and his heralds and pursuivants, attended at the coronation of Robert II. in 1371. Originally the functions of the office were mainly ministerial, e.g. they comprised the 'denouncing' war, proclaiming peace. and carrying public messages. His existing jurisdiction in regard to the inspection of arms and ensigns-armorial of the Scottish nobility and gentry was con-ferred by Acts passed in 1592 and 1672, and was expressly reserved by the treaty of Union. The chief duties appertaining to the office are: (1) To keep the register of all arms and bearings; (2) to matriculate such arms; (3) To fine those who use arms which are not 'matriculated' (i.e. recorded) in his books; (4) prepare funeral escutcheons; (5) to appoint, deprive, or suspend messengers by the advice of the Court of Session; (6) to inquire into and decide questions relating to family representation and claims to coats of arms; (7) to mar-shal state processions. The decisions of the L. C. as to the matriculation of arms are subject to review by the Court of Session. In 1867 the office was by statute made a government office, and the fees appertaining to it directed to be paid to the Treasury, and the same Act provided that the Lyon King-of-Arms should discharge his duties personally, and not by ind, further, that he should be salary. The other and sub-

officers of the L. C. are the

heralds, pursuivants, and messengers; the last-named being originally called officers-of-arms. There are now six heralds and pursuivants with nominal salaries. The principal duties of a messenger-of-arms are to execute all summonses and letters of diligence. both in civil and criminal matters. The insignia of the Lyon are a crown of gold at royal coronations with the motto Miserere mei Deus secundum tuam misericordiam; a velvet tabard worn on all occasions of public ceremonial, while his baton of office is powdered with roses, thistles, sham-rocks, and fleurs-de-lys. See Green's Encyclopædia of Scots Law: Erskine's Principles of the Law of Scotland.

Lyonesse, the scene of most of the Arthurian romances, was a legendary country off the coast of Cornwall, England. It is described in early English chronicles as actually existing and being in a very flourishing state until its sudden disappearance be-neath the sea. It was the scene of the 'last great battle of the West,' and of the final conflict between Arthur

and Sir Modred.

Lyonia, a small genus of flowering shrubs and trees of the order Ericaceæ, white small pitcher-shaped flowers, and alternate leaves, closely allied to the genus Andromeda (q.v.). L. paniculata is hardy in a moist shady border, and L. ferruginea is grown in the greenhouse, flowering in spring. A later flowering species is L. jamaicensis.

Lyon King - of - Arms, see Lyon

COURT.

Lyonnaise, an ancient prov. of France, was bounded on the W. by Auyerne, and on the S. by Languedoc, and the cap, was Lyons. It is now included in the departments of Rhone, and Puy-de-Haute-Loire, Loire,

Dôme, Lyon, the Lyons (Fr. ancient Lugdunum), a city of France, cap. of the Rhône dept., at the confluence the Rhone and Saone, 170 m. N.W. of Marseilles. It occupies an admirable position at the meetingplace of roads and railways, and is second only to Paris in commercial and military importance. It consists of a city proper, between the rivers on a peninsula, and numerous suburbs on the l. b. of the Rhone and the r. b. of the Saone, surrounded by gardens the ancient de

Fourvière is the mose constated, but besides this there is the cathedral of St. Jean, begun in the 12th century,

charitable establishments in the city. said to have been founded in the 6th century. There are also Roman remains, baths, tombs, and the relics of a theatre, and traces exist along the Rhone of a subterranean canal. It is the seat of a national court, of a university academy for the departments Rhône, Loire, and Aix, and of an archbishop, bearing the title of 'Primate of all the Gauls.' There is also a school of medicine, a mint, a national college, a library of 140,000 volumes, a museum, a botanic garden, a school of design, and a national veterinary school. It is a fortified town, being the principal fortress of the interior of France, and, like Paris, possesses a military governor. It has manu-factures of all kinds, the most im-portant being the silk industry in all its branches. There are also manufactures of machinery, copper, bronze, leather, starch, jewellery, iron goods, tobacco, hats, chocolate, and glass goods. Its trade consists in silk and silk goods, cloth, coal and charcoal, metals and metal goods, wine and spirits, cheese and chestnuts. L. was founded in 43 s.c., and became the capital of Celtic Gaul, or the Lyon-naise. It was rebuilt by Nero and also by Constantine, and was the residence of the Burgundian kings to the end of

Lyons

the 5th century. It was annexed to France in 1312. Pop. 520,795.
Lyons, the cap. of Wayne co., New York, U.S.A., stands on the Eric Canal and the Clyde R., and has extensive manufs. of silver ware, agricultural implements, etc. Pop. (1910)

5824.

Lyons, Edmund, Lord (1790-1858), an admiral. In 1803 he joined the Active frigate, and four years later was sent to the E. Indies in the was sent to the E. maies in Monmouth. He was appointed flagin the following year distinguished himself in an attack on the Dutch off the coast of Java. He received his commission as commander in 1812, and was advanced to post-rank in 1814: from 1828-33 he was stationed in the Mediterranean, and in 1835 he was appointed minister and plenipotentiary at the court of Athens. He took a prominent part in the attack on Sebastopol, and during the latter part of the Crimean War held the position of commander-in-chief of the fleet.

Lyons, Richard Bickerton Pemen (1817-87), a diplomatist. In 1858 he was appointed British minister at Washington, on the eve of the Civil War. After three years of difficult one of the finest examples of Gothic War. After three years of difficult architecture in France; the church of St. Martin d'Ainay, the oldest in L., dating from the 6th century; and L., dating from the 6th century; and the was allowed to resign; he because the Hôtel Dieu, one of the chief in 1865, and at Paris in 1867. He was created Earl Lyons in 1887, but the so called because it was sung or retitle became extinct at his death.

Lyons, Gulf of, see Lions, Gulf of. Lyra (the Harp), one of the old constellations, representing the lyro of Mercury (Aratus), of Mercury or of Orpheus (Hyginus). It is surrounded by Cygnus, Aquila, Hercules, and the head of Draco. Its brightest star, a Lyre, also called Vega, is of magnitude 0'1, being the third brightest star in the sky. Its proper motion is 35" per century. If a line be drawn through the middle of Cassiopeia, the pole-star, and the middle of Ursa Major, this star may be seen nearly in "third the middle of Ursa Major, this star may be seen nearly in the middle of Ursa Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, this star may be seen nearly in "the Major, the
When Aquila through its

four neighbouring stars, θ , β , α , and

γ, will pass through a Lyræ. Lyre, the most ancient the οſ stringed instruments nf music. Though associated for us so deeply with the ancient Greeks, who sang to its accompaniment the stories of the Iliad and the Odyssey, the lyre is probably of Asian origin. It was the instrument (kinnor), played by David and by the exiles in Babylon. Greeks attributed its invention to their Hermes who struck sounds from the dried cartilages of a tortoise shell he picked up on the banks of the Nile. The L. consists of a hollow sound-chest surmounted by two branching horns joined by a cross-bar to which the cords were attached. A plectrum of ivory or polished wood was used to touch the cords which were of gut. The Greeks used tortoise-shells from India for their sound-chests, whence the name chelys (tortoise); the framework of the Egyptian L. was of wood. The troubadours accompanied their songs with the L. The cithara and the phorminx are often included in the term.

Lyre-birds, members of the passerine family Menuridæ, which inhabit the forests and bush-districts of Australia. They are large birds with very stout beaks and short rounded wings; the tail has 16 rectrices, and in the males of some species the exterior pair of teathers are curved in the shape of a lyre; the tail of the female is long, broad, and normal in shape. L. live in the thick undergrowth, or sandy gullies of forests, and feed upon insects, worms, and molluses; they rarely fly, but run or strut with the tail spread horizontally. Menura superba is 33 in. long, and of a brownish colour, with blue tinges; M. victoriæ has notch-like markings on the outer rectrices; and M. alberti is of a warmer, reddish colour.

Lyric (Gk. λύρα, a musical instrument with seven strings). Lyrical oetry among the ancient Greeks was

cited to the accompaniment of the lyre. A L. was, and is to-day, a poem of passion, and therefore particularly suited to the form of musical utterance. Its earliest and most primitive form is the folk-song, where the musical element is inseparable from the words. Mr. Sharpe, the well-known English folklorist, asserts that the music and the words of a folk-song evolve together and are bound to-gether by one common thought, so that only the one form of music gives suitable expression to the words. The Greeks distinguished τὰ ἐπη, things spoken, in poetry, from τὰ μέλη, things sung, applying the former to narrative and heroic poetry, which celebrated great deeds of naitonal significance, and the latter to songs, which reflected the emotions of men. feelings of love, friendship, hate, grief, revenge, Bacchanalian joy. Dramatic poetry combined the two elements, epic and lyric. L. poetry took the form of the medos, or song of a single poet, giving vent to his per sonal sentiment, as represented by the work of Sappho and Alcœus, and also of the song in unison sung by a χορός, or troop of singers, as represented by the work of Pindar and the Bacchylides, as well as by choral elements in the Greek drama. The communal element of lyrical poetry has almost passed away. The chorus is no longer employed by the modern dramatists, and the L. is regarded as the personal expression of the poet. In early English poetry the L. is still connected inseparably with musical The Anglo-Saxon bard utterance. was a minstrel or gleeman. In Beowulf we hear again and again of the lord's thane who sang to his harp lays of joy and sorrow before the heroes when the mead had been passed down the benches. The finest examples of the Old English L. which have come down to us are the fragment of the Ruin, the Seafarer, the Wife's Complaint, the Lover's Message, and the Complaint of Deor. The author of the last-named poem has grasped the effectiveness of using a refrain. In these, the earliest forms of English L. poetry, the narrative and descriptive element still prevails over the purely L. The L. form was used with incomparable grace by Elizabethan poets, many of whom, like Drummond and Campion, attained to the first rank only in this one form. The purest L. is the outpouring of a poet's spirit in the moment of his highest inspiration. It is therefore natural that during the age of Elizabeth, an age for England of triumph and exultation, that some of the finest Ls. in our language should have 630

the L. deals with one single emotion. Hegel, in Esthetik, dwells on the subjectivity of the L. in contrast to the objectivity of the epic. But it is impossible to confine lyrical poetry to such limits as these definitions imply. Though poetry is seldom now written to be sung, it is generally held that a lyric should have a metrical form which suggests a musical setting. But frequently this metrical form is absent in poems, like Tintern Abbey, which in emotional quality are essentially lyrical. The odes of Dryden, Gray, and Collins are certainly not subjective, though in metrical form they are adapted to a musical interpretation. Most ballads, too, are primarily nar-rative poems, though their setting is often lyrical. Palgrave included among his collection Gray's Elegy and Wordsworth's Ruth, the one of which is a reflective and the other a narrative poem. The chief exponents of the religious L. in English literature are Milton, Herbert, Vaughan, Crashaw, and later Byron, Milton, Hebrew Melodies) and Moore (Sacred Melodies). Herrick as a metrist cannot be surpassed as a L. writer. His contemporary court poets, Lovelace, Suckling, Carew, etc., also show great metrical skill, but in general they lack the passion of sincerity of the Elizabethans and of later lyrical poets, such as Burns and Shelley. The patriotic spirit is finely represented by Cowper in Toll for the Brave, by Campbell in Ye Mariners of England, by Burns in Scots wha' hae, by Byron, Tennyson, Kipling, and many others. For love songs Burns cannot be excelled, while Shelley, in the ecstatic rapture of his song, is supreme. Consult Palgrave's Golden Treasury, 1861; Hegel, Die Phänomenologie des Geistes G. Saintsbury, Seventeenth Century Lyrics, 1892; J. and C. Masefield, . E.K.(1907:

and Ernest

1907;
Living Authors, 1909; and Ernest
Rhys, Lyric Poetry, 1913.
Lys, or Leze, a riv. of France and
Belgium, rises in the French dept. of
Pas-de-Calais, and flows 130 m. N.E.,
joining the Scheldt at Ghent. It is
navigable for about 100 m., and
carolized for Al canalised for 44 m.

Lysander (Λύσανδρος), a Spartan soldier, was probably of servile origin, but his ability marked him out for great things, and in 407 B.c. he was chosen to command the fleet against the Athenians. Fixing his headquarters at Ephesus, he soon obtained great influence not only with

been composed. In its strictest sense, | seded by Callicratidas in 406, as the Athenian law did not permit the office of admiral to be held twice by the same man, but when Aracus was sent out in 405 as commander in-chief, L. was made vice-admiral, being omet, L. was made vice-admiral, being in reality invested with supreme command. It was in this year that he brought the Peloponnesian War to an end by the defeat and capture of the Athenian fleet off Ægospotami, and followed this up by seizing Athens in 404, destroying her long walls and the fortifications of the Piræus, and establishing the discrept in any use the tablishing the oligarchy known as the Thirty Tyrants. He was by this time the most powerful man in Greece, and began to conceive the idea of bringing about a change in the Spartan constitution by abolishing hereditary royalty and making the throne elective, but his enterprise was cut short by his death. He perished at Haliartus in 395, when commanding one of the Spartan armies in the Bœotian

Lysias (Avoías) (c. 458-378 B.C.), Attic orator born at Athens. born at Athens, though his father was a Syracusan, Cephalus. At the age of fifteen he was sent with his brothers to Thurii in S. Italy, where he studied under the rhetorician Tisias. About 412 he re-turned to Athens, but was accused in 404 of being an enemy of the existing government, and was forced to flee to Megara. He went back to Athens. Megara. He went back to Athens, however, after the fall of the Thirty, and gave his time to the lucrative occupation of writing legal speeches for others, after obtaining high repute as an orator, in 403, by his accusation of Eratosthenes, the murderer of his brother. L. wrote a great number of orations, but only about thrity-five are extant, and of these perhaps not all are genuine, and the only one delivered by him in person was that against Eratosthenes. He is the first really classical orator of the Greeks. and his speeches are remarkable for the purity and simplicity of their language, the skill shown in always adapting style to subject, the lucidity of their description, and above all for their striking delineations of character.

Lysimachus (360-281 B.c.), a Greek general under Alexander, was a Macedonian by birth, and was early promoted to attendance on the king. After the death of Alexander, Thrace and the neighbouring countries as far as the Danube were assigned to I., who extended his kingdom still further and founded the city of Lysimachia on the Hellespont. conjunction with Seleucus he $_{
m In}$ great influence, not only with the feated the combined armies of Greek cities but also with Cyrus, who supplied him with large sums of (301 B.c.). He obtained possession money. He was, however, super- of Macedonia (286 n.c.), and retained the plain of Corus, during a battle

against Seleucus.

Lysippus (c. 336-270 B.C.), a famous Greek sculptor, was originally workman in bronze, and most of his were executed in statues He was the first to intromedium. duce portrait sculpture, and made many representations of Alexander None of his works are the Great. now extant.

Lys-les-Lannoy, a com. in France, dept. Nord, 7 m. N.E. of Lille. Pop.

6500.

Lyte, Henry Francis (1793-1847), a Scottish hymn-writer, born at Ednam, near Kelso. He entered holy orders, and held several curacies; afterwards he had charge of Lower Brixham for twenty-five years. His health compelled him to reside abroad, and he died at Nice, and is buried there in the English cemetery. L. is the author of Abide with me; Praise, my soul, the King of Heaven, and other well-known hymns.

Lytham, a par. and tn. of Lancashire, England, on the R. Ribble, 6½ m. S.E. by S. of Blackpool. L. is a favourite watering-place, and has a pier 900 ft. long. Pop. (1911) 9464.
Lythragem a natural order of

Lythraceee, a natural order of herbs, shrubs, and trees with four-angled branches, and flowers in axillary \mathbf{or} terminal spikes or racemes; the calyx is tubular and the petals inserted between its outer lobes. There are two British genera, Peplis, water purslane, and Lythrum, purple loosestrife, but most members of the order are tropical. Many possess astringent properties and are used in dyeing, particularly morocco leather.

Lythrum, a genus of internately perennials. with twelve divisions alternately smaller, and the petals are minute and fugaceous. L. salicaria, the common purple loosestrife or willow weed, is a handsome British plant common on the banks of rivers and ditches. This plant exhibits a re-markable variation in the length of the style, which was investigated by Darwin. The only other British species is L. Hyssopifolia, a smaller pink-flowered prostrate plant.

Lyttelton, a port of S. Island, New Zealand, 5 m. S.E. by E. of Christ-church. The entrance to the harbour is more than 2 m. wide, and is protected by two breakwaters. There is a lighthouse at Godley Head, on the

N.W., visible 29 m. Pop. 4000.
Lyttelton, Right Hon. Alfred, P.C., M.A., K.C., F.R.C.I. (1857-1913), the M.A., K.C., F.R.C.I. (1857-1913), the Lyttelton, Gen. Hon. Sir Neville eighth son of the fourth Lord L., was Gerald, C.B. (b. 1845), third son of the educated at Eton and Trinity Col- fourth Lord L. born at Hagley, Worlege, Cambridge. He was legal cestershire, and educated at Eton. In

it until his death, which occurred on private secretary to Sir H. James; the plain of Corus, during a battle Attorney-General from 1882-86; Recorder of Oxford from 1894 - 95. Recorder of Hereford from 1895-1903. and was made a bencher of the Inner Temple in 1899. In 1895 he was elected member of parliament for Leamington, in the Liberal-Unionist interest, and held this seat until 1906, after which he became member for St. George's, Hanover Square. From 1903-5 he was Secretary of State to the Colonies, and was subject to much criticism on his conduct of S. African affairs. He was a famous athlete in his day, playing cricket and football for England. He was also tennis champion (1882-95).

Lyttelton, Rev. Hon. Edward, M.A., D.D. (b. 1855), seventh son of the fourth Lord L., born in London, and educated at Eton and Trinity College, Cambridge. He was headmaster of Haileybury from 1890-1905, when he became headmaster of Eton. has published books and pamphlets dealing with various subjects, cricket the training of the young, etc., and also a series of studies on the Sermon

on the Mount.

Lyttelton, George, first Baron Lyttelton (1709-73), the eldest son of Thomas Lyttelton, Bart., Sir of Hagley, Worcestershire. In 1735 he entered the House of Commons as member for Okehampton, and soon acquired considerable reputation as an orator and statesman. He held many important offices, and was raised to the peerage in 1756. Lord L. was esteemed as a writer, and produced many volumes of poetical and historical works. His memoirs and correspondence were published in 1845.

Lyttelton, George William, fourth Baron (1817-76), an English statesman and scholar, born in London. In 1846 he became Under-Secretary of State. He took a great interest in the education and training the lower classes, and an active the formation part in of night schools. He was chairman of the Canterbury Association, which sent Church of England colonists to New Zealand, the seaport, Lyttleton. being so-called in his honour. He has held the positions of principal Queen's College. Birmingham, founder of the Saltley Training School, chief commissioner of endowed schools, etc., and has published lectures on colo-nial matters, and translations into Latin and Greek. and Greek. See Gladstone, Memorials of Lord Lyttelton, Brief1876.

Lyttelton

1865 he entered the rifle brigade, with which he served in Canada, india, and England. He was A.D.C. to Lord Spencer; viceroy of Ireland (1868-73); military scoretary to Sir John Adye, governor of Gibraltar (1883-84), and to Lord Reay, governor of Bombay to Lord Reay, governor of Bombay to Lord Reay, governor of Bombay and Money (1840). His served in the Fenian rebellion, Canada, in 1866; in the Jowaki expedition in 1877, and in the Egyptian campairn of 1832, his gallantry at the battle of Telet Kebir winning for him the brevet of lieut. colonel. He was also present at the battle of Khartoum, and thus attained the rank of major general fleet. colonel. He was also present at the battle of Rhartoum, and the content the rank of major general fleet. Colonel Rhartoum, and the content the rank of major general fleet. Colonel Rhartoum, and the content the real of major general fleet. Colonel Rhartoum, and the content the rank of major general fleet. Colonel Rhartoum, and the content the rank of major general fleet of the forces (1992-4). From 1908-12 he forces (1992-4)

M, the thirteenth letter in the summer Night's Dream, gives that alphabets of Western Europe, and honour to Titania. occurs in the alphabets of Phœnicia. Greece, and Rome. Originally it was written from right to left, and in Crete and Cumm was drawn with five strokes, so—M. Like b, to which it is closely related, it is pronounced with both lips (bi-labial). Curiously enough, b is sometimes slipped in after m, as in the Greek μεσημβρία, noon, and the French nombre (from Lat. numerus, number). Unlike b.

however, m is nasal.
M, used by the Romans for the numeral 1000. Their word for mile was mille passus (a thousand paces),

Avelingh (1890), gives an picture of Dutch manners.

Old Maid's

Maas, see MEUSE.

Maasbree, a in. 11½ m. N.N.E. of Roermond in the prov. of Limburg, Netherlands. Pop. 8775.

Maasejck, or Maeseyck, a tn. on the Meuse, 101 m. S.W. by W. of Roermond in Limburg, Holland. The brothers Van Eyck were born here. Pop. 4600.

Maasin, a port which exports hemp, copra, and tobacco, at the mouth of the Maasin, on the S.W. of the island of Leyte in the Philippine Islands. Pop. 21,638.

Maassluis, a port for herring-fishing, on the Nieuwe Waterweg, 101 m. W. of Rotterdam in Holland. 9175.

Maastricht, or Maestricht (ancient Wedic, refer apparently to the period Trajectus Superior, upper ford), the of Roman settlements in Britain.

ap. of the prov. of Limburg, Holland. It lies 19 m. N.N.E. of Liège resort on the North Sea. 7 m. N.N.E. of Liège resort on the North Sea. 7 m. N.N.E. of Liège resort on the North Sea. 7 m. N.N.E. of Mallethorpe, a favourité seaside resort on the North Sea. 7 m. N.N.E. of Alford, E. Lincolnshire, England. Wijk, which is reached by a stone bridge, is situated on the 1. b. of the bridge, is situated on the North Sea. 7 m. N.E. by reliable to the province of the bridge, is situated on the 1. b. of the bridge, is situated on the 1. b. of the bridge, is situated on the 1. b. of the bridge, is situated on the 1. b. of the bridge, is situated on the 1. b. of th

fairies according to th of Drayton and the

Herrick, and, therefore, the wife of François (1740) he frankly urges the Oheron. But Shakespeare, in Mid-superiority of the ancients.

Maba, a genus of evergreen shrubs. sometimes grown in the stovehouse. M. buxifolia bears yellow flowers. somewhat campanulate in form. Its berries are eaten by the natives of The dark coloured wood is India. hard and durable.

Mabalakat, a tn. connected by rail with S. Fernando, which lies to the S.S.E., in Pampanga, Luzon, the Philippine Islands. Pop. 10,000.

Mabillon, Jean (1632 - 1707),French historian, entered the Benedictine order in 1653, and from 1664 onwards was deeply engaged in editand the initial letter became a symbol ing a colossal number of manuscripts for the number. See ABRREVIATIONS. at the abbey of Saint-Germain-des-Maartens, Maarten Joost (b. 1858), Prés in Paris. The result of his in Dutch novelist, born in Am vestigations was his Aeta Sanctorum sterdam. He writes in English, and ordinas S. Benedicti (1668-1701), a in his first novel, The Sin of Joost monumental history of the order. His Arclingh (1890), gives an

as interested other his own.

Mabinogion, The, is another name tions (1903), for the Red Book, which was trans-have also lated into English and edited by Lady Charlotte Guest in 1838-49. The Red Book of Hergest is an in-Lady valuable manuscript, now preserved in Jesus College, Oxford, and contain-ing eleven prose tales of Welsh literature and also a romance entitled Hanes Taliessin. The manuscript belongs to the 14th and early 15th centuries. Three of the stories, The Lady of the Fountain, Peredur, and Geraint, deal with the Arthurian legend, Kilhuch and Olwen and the Dream of Rhonabivy are termed mixed remances, as in them Irish mythology and the deeds of Arthur are freely intermingled. Pwyll, Branwen, Manawyddan, and Math are purely Irish in origin. The remaining two stories, Pop. origin. and Lludd Llevelys and Maastricht, or Maestricht (ancient | Wledic, refer apparently to the period

ended in separation. des Romains et des

Mabuse, John (c. 1470 - 1532), a France.' It is the largest Protestant Flemish painter, was really Jan mission in that country, and has Gossært, but we can't I value of the 12 as many as 15,000 meetings in his birthplace, Market in the care of the Market in the Pritish Isles. National Galler, includer, which The Macao (Chinese A-Mangao, har-Upright Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), and a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma), and a Portugish Judges' in Antwerp are in his bour of the goddess A-Ma). early and purely Flemish style, but his triptych of 'Adam and Eve' (1516) in the Berlin Gallery shows the influence of his sojourn in Italy. Thither he went in 1508 in the company of Philip of Burgundy, his patron, and there he copied the masterpieces of Leonardo da Vinci and Michelangelo.

Mac, a Gaelic prefix signifying 'son of,' like the Norman 'Fitz' in Fitzmaurice, the Irish 'O'' in Fitzmaurice, the Irish 'O' in O'Grady, and the Welsh 'Map' or ''Ap' in ApRichard ('Prichard). MacGregor and MacLean are common examples. A confusion with 'magnus' probably accounts for the meaning of 'great' which 'Mac'

sometimes seems to bear.

Macadam, John Loudon (1756-1836), a Scottish inventor, has given his name to a process of road-making which consists in crushing layers of small broken stones till they offer a hard smooth surface suitable or traffic. In 1816 he successfully macadamised the Bristol roads. for traffic. He was appointed surveyor-general of metropolitan roads in 1827 and granted £10,000.

Macacus, a genus of monkeys, the most interesting of which is M. Inuus, the Barbary ape (q.v.), which is the only monkey still living in a wild state in Europe. Members of the genus have the tail long, and generally also cheek pouches and naked

callosities.

McAlester, a tn. of the Choctaws, Oklahoma, U.S.A. Pop. (1910) 12,954. Macalister, Sir Donald (b. 1854), a Scottish physician, graduated as senior wrangler and first Smith's prizeman from St. John's College, Cambridge, in 1877, and afterwards took his M.A. and M.D. degrees. He has lectured at the Royal College of Physicians; examined for Cambridge and London universities; held the Linacre lectureship of physic at his own university; served as president of the General Medical Council and as vicepresident of the International Congress of Hygiene in London (1907); and since 1907 has been principal and vice-chancellor of Glasgow University. Amid his manifold activities he has found time to publish The Practitioner (1882-94), and several im-

noner (1852-34), and several implements of about 1772 portant monographs.

M'All Mission, was foun ' about 1772 have a several implement 1772 have a several

guese dependency in China. It lies on a peninsula flanking the western side of the mouth of the Canton R .. and with its gaily-painted level roofs presents an attractive appearance to European eyes. The inhabitants, practically the whole of whom are Chinese, are engaged mostly in the tea trade, but opium, rice, silk, fish, and raw cotton are exchanged with Hong-Kong, Goa, and Canton, etc. With Timor it is the see of a Roman Catholic bishop. Portugueso factors settled here as early as 1557. Pop. 64,000.

Macaroni (Lat. macerare, to bruise), a form of wheat paste whose manufac-ture was for a long time exclusively confined to Italy, where it is an im-portant article of diet. A particular variety of wheat is required for this purpose, i.e. the hard kind which contains a large percentage of gluten. At one time the M. was made by hand, but this practice has been superseded by machinery. The wheat is ground into a semola, or coarse meal, from which the bran is removed; this is worked into a dough with water, and afterwards forced through a cylinder, generally into tube shapes, but also into sheets, etc. Vermicelli differs

into sheets, etc. Vermicelli differs from M. only in thickness and shape. Macaronic Verse, a species of bur-lesque, the humour of which depends partly on tagging Latin suffixes on to all the words so as to suggest the dignity of Latin poems, and thus turn the rhyme into a mock-heroic. Two lines are quoted from *Polemo-Mid-*dinia (1684), which is attributed to Drummond of Hawthornden, to in-

dicate the effect produced:

Maggeam, magis doctam, milkare coweas.

Et doctam sweepare flooras, et sternere beddas.

Liber Macaronices of Teofilo Folengo, who first popularised this amusing device, appeared in 1517. The author was a dissolute Benedictine monk, who explains that his doggerel, like the native macaroni, is nothing but a rude hotch-potch. The French classic writer of such verse is Antonius de Arena (d. 1544).

Macaronis were daudies and exquisites of London, who flourished about 1772 and were known by the of their dress and more

their amazing wigs. is fortunately had a'. ~ "

Macaroon, a biscuit made of eggs, that would enable him to save sugar, and finely crushed almonds. The name is derived, like 'macaroni,' from It. maccare, to bruise.

Macarsca, or Makarska (Rom. Mocrum), a port, 32 m. E. of Spalato, in

Dalmatia, Austria. Pop. 12,155. . Earl and

7 for Ireland from 1769-72, and sat in the Irish parliament. For two successive periods of flve years (1775-85) he was governor of Granada and Madras regovernor of Grandal and Madras respectively. As envoy extraordinary to Russia he negotiated a commercial treaty in 1767. In 1792 he was sent as plenipotentiary to China.

Macartney, Sir Halliday (1833-1906), an English physician and diplomat, took his M.D. degree at Edinburgh University in 1858. For every verse (1852-62) he worked in the

four years (1858-62) he worked in the army medical department, and after serving in the Chinese War (1860) and later against the Taipings, was appointed director of the imperial arsenal at Nankin. From 1876 onwards he was secretary to the Chinese embassy in London.

Macassar, or Mangkasar, the cap. of a dist. of the same name in Southern Celebes, Dutch E. Indies. It is made up of the Dutch port (Vlaardingen) and the Malay city, which lies back from the shore. Its annual commerce in trepang, coffee, copra, and spices, etc., amounts to £1,500,000. Pop. 18,000.

Macassar, Strait of, separates the islands of Celebes and Borneo, Dutch E. Indies.

Macato, pucblo, in the N. of Panay Is., prov. of Capiz, Philippines. Pop. 10,000. 7773-91), an

listory of James 1.

ne (1763-\$3) which won general admiration. She met Turgot and Franklin in Paris (1777), stayed ten days with Washington at Mount Vernon (1785). was teased by Dr. Johnson, and described by Lecky as the ablest writer of the new radical school.

M to. Za

18 came one of the most valued writers for that periodical, with which his connection endured for many year. When the successor of Ho entered parliament in 1830, two years later was appoint commissioner, and a year. Edinburgh Review, when his essay on Milton appeared. He soon becommissioner, and a year , Gruach. According secretary of the Board of Cor his reign was pros-In 1831, tempted by the large salary perous, and M. a benefactor; he made

enough to support himself for the rest of his life, he accepted an appointment as a member of the supreme council of India, and he stayed in that country for five years. During his exile he assisted in preparing a oriminal code for India, which did not, however, become law until the year after his death. On his return to England he was returned to parliament as member for Edinburgh, and in 1839 became Secretary of War, which office he held for two years. Edinburgh rejected him in 1847, but made areads by election him in 1859. made amends by electing him in 1852. M. did not neglect his literary labours. He published Lays of Ancient Rome in 1842, and in the following years revised some of his Edinburgh Review articles for publication in book form. Since 1839 he had been at work on his History of England, which was to deal with the period from the Revolution to the death of George III.; but it was not until 1848 that the first two volumes appeared, volumes three and four being published seven years later, and the fifth posthumously (1881). The History was received with a chorus of praise. Its sale was enormous, and it was everywhere eagerly discussed. Its vivid style made it eminently readable, and for that people overlooked the Whig bias that everywhere dominated it.

t in, and M.'s were under-

into his own, but it cannot be said that his work is reliable, and while it has great and undoubted merits, his 'purple patches' are on the whole rocker irritation to the pascent decrease. irritating 'to the present-day reader. M. was raised to the peerage in 1857, and was buried in Westminster Abbey two years later. His Life and Letters, one of the classic biographies, was written by his nephew, Sir George Otto Trevelyan, 1876.

Macaw, a general name for large brilliantly-coloured parrots of the genus Ara, natives of S. America. Their cry is unpleasantly harsh, and they are less docile than the true

parrots.

Macaw Tree, aname given to several species of Acrocomia, a S. American genus of palms, with an elegant tuft of huge pinnate leaves at the top of the tall prickly trunks.

a pilgrimage to Rome in 1050. In 1054 he was defeated by Siward at Dansinane (Perthshire), and in 1057 defeated and slain by Siward and Malcolin, the phanan in speare's trag on his life.

The Poole of the, certain which only

importance.

I. Maccabees begins with a sketch of
the conquests of Alexander the Great
and the oppression which the Jews
suffered from Antiochus Epiphanes.
It then continues with a history of
the.
from

unti The

(1)
the period in which Judas Maccauces
was leader; (2) chaps. ix. 23-xii. 53,
dealing with

Jonathan; and 18, under the The work then

Helling of the accession of Hyrcanus, and referring to chronicles of his priesthood.'

Maccabees was originally written in

Maccabees was originally written in Hebrew, but only Greek versions are extant. The author was a patriotic Jew of unknown name. The date of its composition must be between 135 and 63 B.C., probably at the very beginning of this period. It may even have been commenced at an earlier date. II. Maccabees is a late composition of inferior historical value. It begins with two letters purporting to be addressed by the Jews of Jerusalem to those in Egypt. It then gives an account of the wars of the Maccabees from about 176-161 B.C., covering about the same ground as the first seven chapters of I. Maccabees. The author does not claim great accuracy, and speaks of his work as the epitome of a larger work by a certain Jason of Cyrene. It is much later than I. Maccabees, though before 70 A.D. III. Maccabees and IV. Maccabees are not strictly historical. The former deals with the period of Ptolemy Philopator, and the latter is better described by its sub-title, The Sovereignty of Reason. Maccabees, The, or The Hasmoneans, a Jewish family, who led the struggle for independence against the

Maccabees, The, or The Hasmoneans, a Jewish family, who led the struggle for independence against the Syrian power in the 2nd century B.C. For details see under the names of the individual members of the family—MATTATHIAS, JUDAS, JONATHAN, SIMON, and JOHN HYRCANUS.

Maccaluba, the name of a group of mud volcanoes in Sicily, 6 m. N. of Girgenti. The name is often used as a general term for such volcanoes.

MacCarthy, Denis Florence (1817-

In | \$2), an Irish poet, born in Dublin. His office action verses appeared in the Dublin | 1057 | Satirist, and by 1843 he was a regular and contributor to the Nation. He received a medal from the Royal Spanish Academy for translating Calderon's dramas; he had previously been granted a Civil List pension. Among his works may be mentioned, and the satirity and servery popular work; The Bettlounder, and Ear

M'Car Irish hi and pol 1864-68

Star, having previously been a reporter. He was Home Rule member for Longford co. from 1879-85, for N. Longford from 1885-86, and from 1892-1900, and for Londonderry from 1886-92. On the fall of Parnell in 1892, he became chairman of the Home Rule party, a post which he beld until 1896. For many years, from

Georges and William IV., 1004-1801; Epoch of Reform, 1874; Modern England, 1899; and Rome in Ireland, 1904. His novels, which are numerous, include: My Enemy's Daughter, 1869; Lady Judith, 1871; A Fair Saxon, 1873; Camiola, 1885, and in collaboration with Mrs. Campbell Praed, The Right Honourable. 1886; The Rebel Rose, 1887; and The Ladies Gallery, 1888. He also wrote a volume of essays entitled Con Amore, 1865, and published his Reminiscences in 1899.

M'Carthy, Justin Huntly (b. 1860), an English dramatist, novelist, and historian. From 1884-92 he was member of parliament, and has travelled much in Egypt, the Holy Land, and the United States. Among his numerous works may be mentioned: A London Legend; If I were King; Ireland since the Union; Sketches of Irish History, 1887; A History of England under Gladstone,

1885, etc.

M'Cheyne, Robert Murray (1813-43), a Scottish divine, born at Edinburgh, and educated at Edinburgh University and Divinity Hall. His journey to Palestine in connection with a mission to the Jews, and a religious revival at his own church in Dundee, convinced him that his mission was as an evangelist, but he died before he could carry out his plans. His Memoirs and Remains, edited by Rev. A. A. Bonar (new ed. 1913), had at one time a great influence, running through 100 English editions.

Macchiavelli, see Machiavelli.

Macclesfield, a municipal bor. and Angle-American Association, and market tn. of Cheshire, England, some years after his return to Lon-17 m. S.S.E. of Manchester. It is the don became lecturer at St. Thomas' chief silk-manufacturing centre of England, producing all kinds of plain and fancy ribbons, etc.; there are also breweries and coal mines, and slate is quarried in the vicinity. Pop. (1911) 34,804.

M'Clintock, Francis Leopold Sir (1819-1907), a British explorer and admiral, born at Dundalk in Ireland. and entered the navy in 1831. first went to the Arctic regions in 1848 with Sir James Ross; his most famous achievement was ascertaining the fate of Sir John Franklin on his expedition with the Fox in 1857. On his return he was knighted; he was made naval aide-de-camp to Queen Victoria, vice-admiral in 1877, and K.C.B. in 1891. He described his ex-pedition in The Voyage of the Fox, published in 1859.

Land in the Arctic regions.

M'Clure, Sir Robert John le ! * (1807-73), an explorer, was a of Wexford, Ireland. In

Joined the navy, and in 1836 went on Fritosophy, 1860, Realistic Philo-Captain Back's expedition to the sophy, 1887; First and Fundamental Artic regions. In 1848 he accompanied Ross to the Arctic, and in M'Crie, Thomas (1772 1835), a 1866. 1850 went on his third expedition as commander of the Investigator. During this expedition he was successful injourneying through the North-West

M'Cluro's Magazine, was founded in America in 1893 by Mr. S. M'Clure. It counts Robert Louis Stevenson. J. M. Barrie, Rudyard Kipling, Deau Farrer and many other writers of Farrie, Rudyard Kipling, Deau Farrer and many other writers of equal distinction among its contributors. Miss Tarbell's History of the Standard Oil Company, which at the time greeted such a present of the standard or the time greeted such a present of the standard of th the time created such a sensation, first appeared in this monthly, whilst it has also published an excellent Life of Lincoln.

MacColl, Malcolm (1838-1907), an Anglican divine and author, born at Glenfinnan, Inverness-shire, Scotland. Among his .

be mention British An burg, 1862

71-

iscippi, U.S.A., 95 m. N.E. of New Orleans. It is engaged in the cotton manut. Pop. (1910) 6237. MacCormac, Sir William (1836-

MacCormac, Sir William (1836- M'Culloch, S 1901), a surgeon, born in Ireland, politician, born During the Franco-German War of beginning his cr 1870-71 he was attached to the to Melbourne,

Hospital and surgeon to various other hospitals. During the S. African War of 1899-1902 he acted as surgeon to the troops, and in 1901 was made sergeant-surgeon to King Edward VII. Among bis literary works are: Notes and Recollections of an Ambulance Surgeon, 1870, and Surgical Operations, 1885 and 1889

M'Cosh, James (1811-94), a Scottish philosopher, born at Carskeoch. Ayrshire. In 1835 be became a minister at Arbroath and in 1839 at minister at arproach and in 1553 at Brechin. In 1851 he was made professor of logic and metaphysics at Queen's College, Belfast, and from 1858-88 was president of Princeton College, New Jersey, U.S.A. The principle on which he based his theology was chiefly that of intuition and he was quite concessed. MacClintok Island, in Franz-Josef tuition, and he was quite opposed

His writings of the Divine and Moral, Mr. J. S. Mill's

Scottish clergyman and writer, born at Duns. His works deal chiefly with ecclesiastical history in Scotland and other countries, his chief being: Life of John Knox, 1812: Life of Andrew Melville, 1819; History of the Pro-gress and Suppression of the Reformation in Spain in the 16th century, 1829. See Life by his son, Thomas M., published in 1840.

M'Culloch, Horatio (1805-67), a ter, a native by painting xhibited pic-

n became an A.R.S.A., and in 1838 an R.S.A. He spent the latter years of his life in Edinburgh. His chief pictures are: 'Mist rising off the Mountains,' 'Deer Forest,' 'Loch-an-Eilan,' and 'Both-mell' Coeffe.'

och, James Melville (1801-83), at St. Andrews University. ne the master of a school in Dunkera, and afterwards in Edin-London, and canon of Ripon Cathe-Dunkern, and afterwards in Edul-dral, 1884. He was the author of burgh, and was ordained to the mindral, 1884. He was appointed minister at istry. He was appointed minister at Arbroath, then at Kelso, and finally of the W. parish of Greenoek. He was the author of several works, among them Pelas Juvenalis: a manual of devotion for schools and young persons. 1838. See Memoir prefixed to Sermons by J. M.

M'Culloch, S ...

le,

held the office of premier of Victoria.

MacCulloch, John (1773-1835), a geologist, born in Guernsey. qualified as a surgeon, and was afterwards employed in research work on the goology of Scotland. He has written A Description of the Western Isles of Scotland, 1819, and A System of Geology, 1831

M'Culloch, John Ramsay (1789-1864), an economist and statistician, born at Whithorn in Wigtownshire. He contributed to the Scotsman and the Edinburgh Review. Among his works are: The Principles of Political Economy, 1820; A Statistical Account of the British Empire, 1837; and Dic-tionary of Commerce, 1869.

MacCunn, Hamish (b. 1868). musical composer, born in Greenock. He has acted as conductor to several

nong his Tilmeny, and the Iountain |

and the Flood.

Macdonald, Andrew (c. 1755-88), an author, and a minister of the Scottish Episcopalian Church. His works include novels, plays, and poetry, but owing to his want of management he was reduced to great poverty before his death, and figures in The Calamities and Quarrels Authors, of edited by Benjamin D'Israeli.

Macdonald, Col. Sir Claude Maxwell (b. 1852), a soldier and ambassador, served in 1882 in the Egyptian camserved in 1852 in the Egyptian campaign, and in the Suakin expedition of 1884. From 1896-1900 he held the office of minister at Peking, and during the siege there had command of the legation quarters. In 1900 he was appointed ambassador in Japan.

Macdonald, Etienne Jacques Joseph exandre (1765-1840), Duke of Alexandre Taranto, a marshal of France, born at Sedan. Having entered the army in about 1784 he was successful in his capture of the Dutch fleet in 1795. After withstanding Suvaroff in Italy he was defeated by him on the Trebia, but was again successful in 1800 by his march across the Splüren. In 1805, however, he fell into disfavour with Napoleon, but was restored in 1809, when he triumphed over the Austrians at Wagram—this service being rewarded by the title of mar-shal. He was in command in Spain in 1810, and was completely defeated by Blücher at Katzbach in 1813. See

Blücher at Katzbach in 1813. See Souvenirs du Marchal Macdonald, edited by M. C. Rousset, 1892.

Macdonald, Flora (1722-90), rescuer of Charles Stuart, born at Milton, S. Uist, Hebrides. After the battle of Culloden (1746), she was successful in helping 'the Pretender' to land in Slyae having discussed him as 'Bett's Skye, having disguised him as ' Betty

entered political life and eventually Burke, her maid. On account of this she was arrested and imprisoned, but was released in 1747, and three years later she married Macdonald of Kingslater she married Macdonald of Kingsburgh. They afterwards went to America, and Flora, who returned alone to Scotland, was joined later by her husband. See W. Jolly, Flora Macdonald in Uist, 1886; and Alexander MacGregor, The Life of Flora Macdonald, 1901.

Macdonald, George (1824-1905), a

Macdonald, George (1824-1905), a Scottish author, born at Huntly, Aberdeenshire. His first literary Aberdeenshire. His first literary work was published in 1866. He is the author of Poems, 1857; Phantastes, a Faerie Romance, 1858; and of many novels, including: David Elginbrod, 1862; Robert Falconer. 1868; Malcolm, 1874; The Marquis of Lossie, 1877; and of children's books, such as The Princess and the Cablin, 1871. See Life by Bey Goblin, 1871. See Joseph Johnson, 1905. See Life by Rev.

Macdonald, Sir Hector Archibald (1852-1903), a British soldier, who won for himself the soubrique of 'Fighting Mac,' on account of his great bravery. He was born in great bravery. He was born in humble circumstances at Muir of Allan Grange, Ross-shire, Scotland. He enlisted when only eighteen in the Gordon Highlanders. Taken prisoner at Majubain the first Boer War (1881), General Joubert returned him his sword on account of his bravery. took part in the Nile expedition (1885) under Sir Evelyn Wood. He distinguished himself in the Dongola expedition (1896) and gained a brilliant success in the decisive battle of Omdurman (1898), where he com-pletely routed the Mahdi's troops. In the Transvaal War of 1899 he commanded the brigade during the Paardeberg, Bloemfontein, and Pre-toria campaign under Lord Roberts, and was made K.C.B. in 1901. He committed suicide in Paris.

Macdonald, James Ramsay (b. 1866). M.P. (Labour) for Leicester since 1906, born at Lossiemouth, Elgin-shire. In 1900 he became secretary to the Labour party, and in 1911 he was elected leader. He was a member of the London County Council (1901-4), and chairman of the Independent Labour party (1906-9). Editor of the Socialist Library since 1905. His publications include: Socialism and Society; Labour and the Empire; Government; Socialism and of Awakening India: Socialism (Social Problems Series); The Socia-University list Movement (Home Library).

Macdonald, Sir John Alexander (1815-91), an able Canadian statesman whose bp. was in Glasgow, Scotland. He went to Canada with his parents when a child. After studying

at Kingston, he was called to the bar but is slain by Macduff in the battle in 1836, and became Q.C. ten years of Dunsinane. later. He represented Kingston in the Canadian Assembly for a term of twenty-three years, and afterwards sat for Victoria, British Columbia. became Attorney-General more than one occasion.

Macdonnell, Antony Patrick, Baron (b. 1844), created Baron of Swinford in 1908. He entered the Indian service in 1865, and became acting chief commissioner in Burma in 1889. Other important posts which he has held are governor of N.W. Provinces, chief commissioner of Oudh (1895-1901). However has not be live for the commissioner of the live for t governor of

Macdonn ' ٠. containing gold and ruby fields, situated in Central Australia immediately S. of the Tropic of Cancer.

M'Dougall, William (1822-1905), a Canadian statesman, whose bp. was Toronto. He was appointed judge in the prov. of Quebee, and it was due to his policy that the union of British

N. America was effected. MacDowell, Edward (1861-1907), a pianist and composer, of Scottish-Irish descent, born at New York. Coming to Europe in 1876, he studied at Paris, Stuttgart, and Wiesbaden, his principal teacher being Raff. In 1887 he returned to America and settled at Boston, nine years later becoming music professor at Columbia University, New York, a position which he retained until 1904. His writings for the pianoforte have been acclaimed as the finest since Schumann; they include four sonatas, two concertos, and a vast number of smaller works, of which the best known are the Sca Picces, Op. 55; he also left some very beautiful songs, four symphonic poems, and two orchestral suites. His planoforte works afford remarkable opportuni-

MacDowell. M'Dowell, Irvin (1818 - 85), an American soldier, was made briga-dier-general in 1861, but met with a reverse in the Virginian cam-M'Dowell, paign, when he was defeated at Bull Run. He sustained another defeat a Run. He sustained another under year later as major-general under General Pope at Second Bull Run.

ties for experiments in tone-production. See Lawrence Gilman's Edward

boat-building are the chief industries.

borrowed by Shakespeare from Holinshed's Chronicles for his tragedy Mace of the Nutmer, a blood-Macbeth. In the play Macbeth red lacerated membrane which con-murders Macduff's wife and children, tains a very fragrant oil. If expressed

Mace, The, a staff 5 ft. long, originally a weapon of defence, is now a symbol of office, as in parliament, the church, and universities, and is brought out on state occasions. 'lord mayor's M. is set with pearls.

Mace, Jem (1831-1910), a famous English pugilist, born at Swaffham, Norfolk. There was a celebrated contest between him and Tom King in 1862, when the latter was beaten.

Macedonia, a portion of former Turkey in Europe. It is bounded on the N. by the Kara Dagh Mts. and Bulgaria, on the E. by the R. Mesta, the S. by the Ægean and Greece.

. westward by the Shar, Grammus, and Pindus ranges. It is now included in the vilayets of Monastir, Kossovo, Kortcha, and Salonica. The R. Vardar almost bisects M. and empties into the Gulf of Salonica. Other main streams are the Strums. Mesta, and Bistritza, which flow into the Ægean. The Rhodope, Shar, Grammus, Nija, Pindus, Perim Dagh, and Yaina-Bistra Mts. embrace many summits over 8000 ft. The climate is harsh. There are still some fine belts of forest on the mountain slopes. Excellent tobacco is grown, and figs, olives, and grain are also cultivated. Gold and silver used to be mined on the Bunar Dagh, and it is likely that enterprise will discover considerable mineral wealth. The chief town (and port) is Salonica, and after it come Monastir, Usküb, Serres, and

minant popuut there are st and in the

Roumanians, and Jews. The diminishing number of inhabitants has been roughly estimated at 2,250,000, over half of whom are Christians. M. fell a victim to the Turks in the early 15th century. When the reforms promised in the Treaty of Berlin (1878) were not forthcoming, the Bulgarian inhabitants formed the 'Internal Organisation' (1893), the watchword of which was 'Macedonia for the Macedonians.' Insurrections against Turkish misrule and the savage repressions which followed these insurrections, led to the inter-ference of Austria and Russia, who macuum, a port of Banffshire, Scotland ; it is a popular seaside resort from the obstinate Porte (1903). The on account of the bathing facilities wexed Macedonian question is still and bracing air. Herring fisheries and boat-building are the chief traduction.

Maceio, a city of Brazil, cap. of the Pop. (1911) 3411. state Alagoas. Its port of Jaragua Macduff. Thane of, a character exports sugar, rum, and cotton. Pop.

33,000.

Macer

He wrote several books, among which are: De Appella-tionibus; De Re Militari; De Officio Præsidis; De Publicis Judiciis; and Ad Legem de Vicesima Hereditatum.

Macerata, the cap. of the prov. of many other philanthropic enterprises, Macerata in the Marches, Italy, 22 m. he presented valuable lands to the S.W. of Ancona. The city is protected M'Gill University. by a wall more than 21 m. in circumference. It is the see of a bishop. Pop.

23,000. Maceration, a process by which some of the constituents of plants are extracted by steeping the seeds, leaves, roots, etc., in a suitable solvent; there may be also a certain amount of breaking up of the fibres by mechanical means. The operation is adonted in the proportion solvent; there may be also a certain sculptures include the Burns statue, amount of breaking up of the fibres by mechanical means. The operation is adopted in the preparation of liqueurs, when the flavouring matters are extracted by steeping the plant post of curator in the museum of the in strong spirit, and in the preparation of the post of curator in the museum of the

the oil serves as a liniment, and if distilled it possesses the fragrance of mace.

Macer, Æmilius, a Roman jurist, who lived in the reign of Alexander Severus. He wrote several back the figure of the first property of t

McGregor

philanthropist, who emigrated to philanthropist, who emigraced to Canada, where he settled down in Montreal as a fur merchant. He became a member of the Lower Canadian Assembly, and amongst

Macgillicuddy's Reeks, a mountain range in Ireland, in the co. of Kerry; the highest peak is Carran-tual or

Carntual (3414 ft.). Macgillivray, Ja Macgillivray, James Pittendreigh (b. 1856), a sculptor, born at Port Elphinstone in Aberdeenshire. His sculptures included the control of the

are extracted by steeping the plant post of curator in the museum of the in strong spirit, and in the preparation of perfumes, when the essential (1831-41); professor of botany and oils are extracted by treating the natural history in Marischal College, flowers or other parts with hot oil, Aberdeen. He wrote a History of the essential oils being afterwards British British British and Text Book of British British Parkey and Strike estimates.

the essential oils being afterwards dissolved out with alcohol.

Macewen, Sir William (b. 1848), a British Birds; A Text Book of Botany, and many other articles.

Macawen, Sir William (b. 1848), a M'Gill University, a college in Montamous surgeon. He was knighted in 1902, and has been professor of surgery at Glasgow University since 1892. He is an honorary member of the principal European medical academies and surgical societies. Among his publications may be mentioned: The Transplantation of Bone by Bone Grafting, and Osteolomy.

Macfarren, Sir George Alexander (1813-87), a celebrated composer and writer on musical theory, born in London. He became professor of The london. He became professor of The london by the london in the london by the london

purneyed up many Eurohis book, A Thousand Rob Roy Canoe, appeared

he is best known for his theoretical publications: Rudiments of Harmony; were given to various philanthropic f. schemes. and A Musical History.

